

Manufacturers Record

Exponent of America



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Baltimore, Md.
MARCH 1, 1923

How to Enrich and Bless the South.

Diversification of farming is one of the supreme needs of the South. Broadly speaking, from the viewpoint of the benefit to the South through the coming years, it is possibly the most important economic question which the South faces.

It is true that the South produces, as we have often pointed out, a vast amount of foodstuffs shipped to other sections, but the South continues to expend hundreds of millions of dollars for wheat and flour and provisions and butter and cheese and eggs and other things which it should produce at home. The railroads running from the West to the South carry a vast amount of western-grown stuff, whereas this section should produce every pound of meat that it consumes, every pound of butter and cheese and poultry which it requires. Southern newspapers constantly carry advertisements of sausage and butter and other things made in Wisconsin and other Western states and yet products equally as good can be made in every state in the South, to the profit of the farmer and to the benefit of the whole South.

The higher prices of cotton which have prevailed for some months, and which judged by the world's shortage should continue to advance, would be a curse rather than a blessing to the South, if they should tempt the cotton growers to enlarge their acreage, hoping to produce a bigger crop. Cotton has in many respects, from the days of slavery to this hour, been a curse to the South. It will be made a still greater curse if in spite of the boll weevil and other adverse conditions Southern farmers should concentrate their efforts again upon cotton growing by putting in a large acreage at the expense of diversified farming.

It behooves every man and woman interested in the permanent welfare of the South, in the betterment of farm life, in the betterment of schools and churches, in a larger and broader vision of the people, and in greater prosperity of all interests to encourage at home the production of everything which the South consumes in the way of foodstuffs and feedstuffs. If this section should again be tempted by the advancing prices of cotton to abandon the trend to diversified farming and again bow the knee before cotton as king it would make one of the greatest economic blunders in its history.

Let it be forever understood that the South is under no moral obligation to raise cotton, and we venture the assertion that no man in the South ever thinks of raising cotton on the basis of any moral obligation to the world to do so. The man who puts in an increased acreage is hoping that other men will put in a smaller acreage and that he will win by reason of their lessened yield, and thus all cotton growers are injured. Moreover, a larger acreage in cotton would make proper cultivation an impossibility and the time and energy and money thus expended would be wasted.

It is true that the world is short of cotton, but the world is eagerly proclaiming this fact in order to encourage Southern farmers to plant an increased acreage. Back of much of the propaganda in this country and especially abroad about the world's cotton shortage is the hope of these who are proclaiming that fact from the housetops that they may thus induce the South, tempted by this shortage and by rising prices, to plant for a big crop. If the word went out that the South had put in a large acreage, and entirely without regard to whether that acreage meant a larger total yield or not, prices would instantly be beaten down for the coming crop and the speculators would once more reap their harvest at the expense of the Southern farmer and Southern prosperity.



Announcement

On March 1st, 1923, Manning, Maxwell & Moore, Inc., will open an office in

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The office will be in charge of Mr. J. C. Blanton, Manager, who for many years has represented Manning, Maxwell & Moore, Inc., in the South.

Associated with him will be Mr. W. G. Nichol who will be in charge of the sale of Machinery and Shaw Cranes.

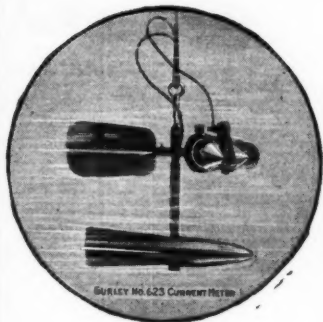
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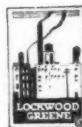
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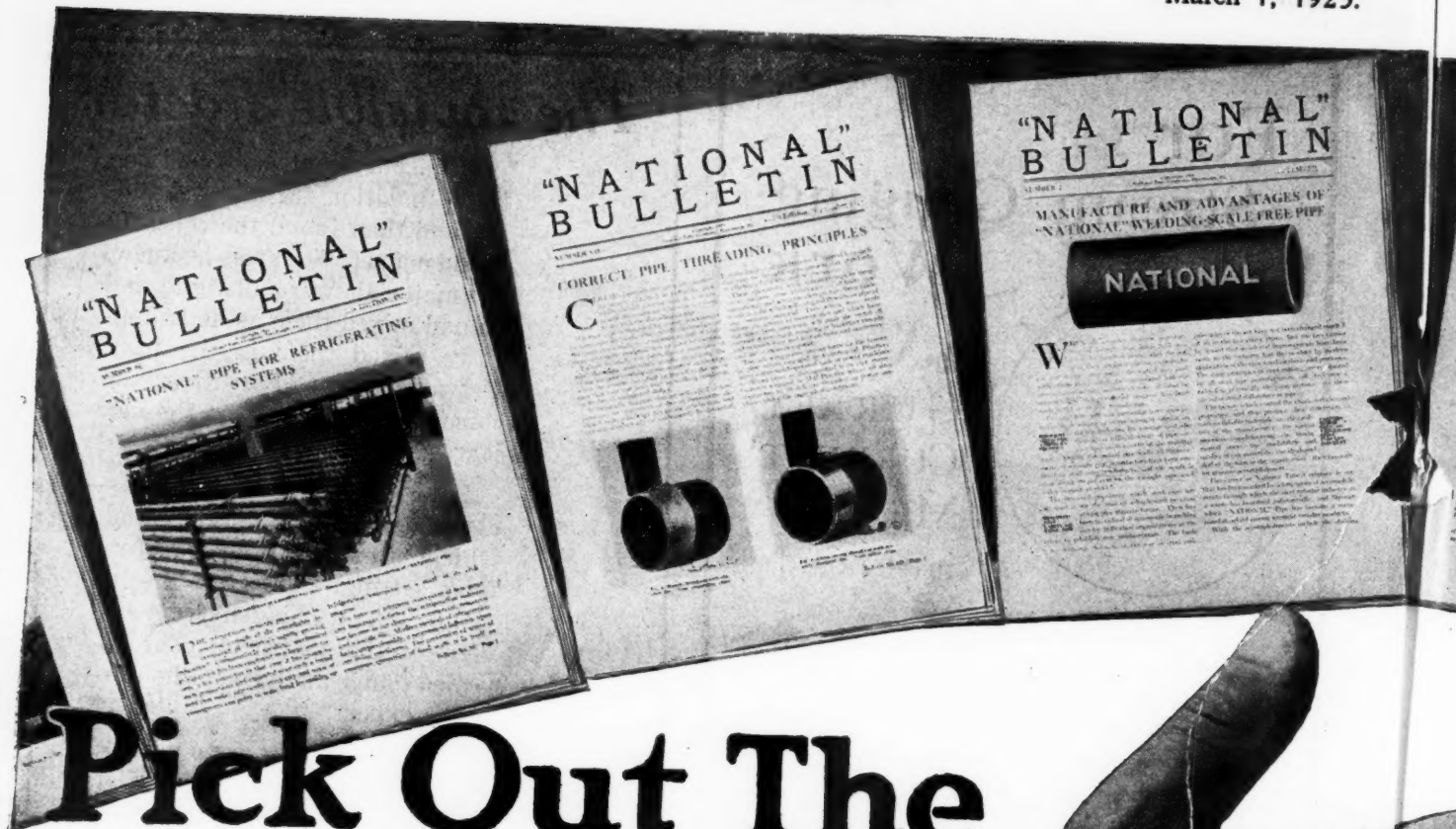


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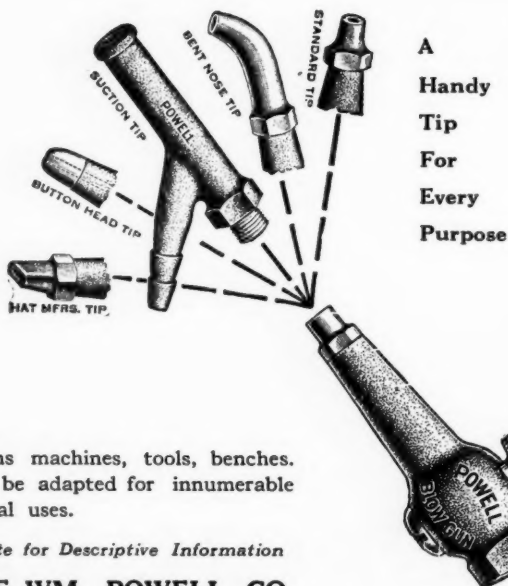
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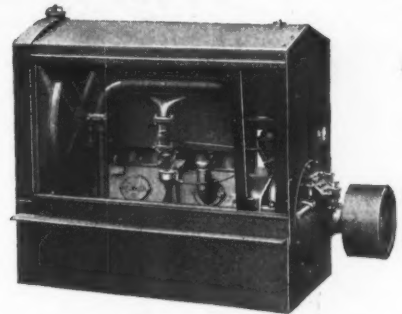
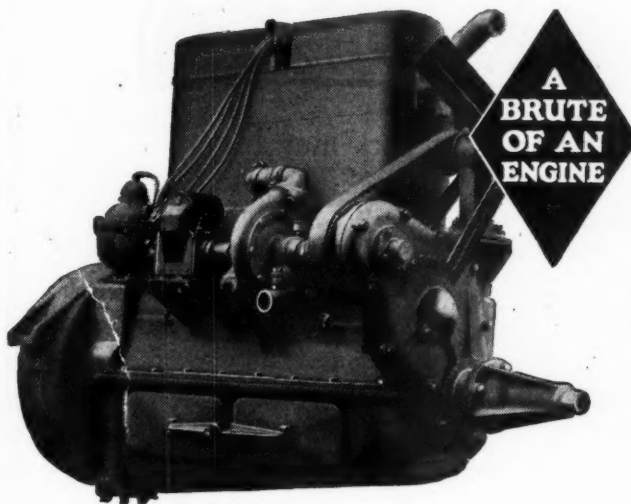
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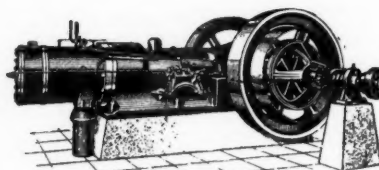


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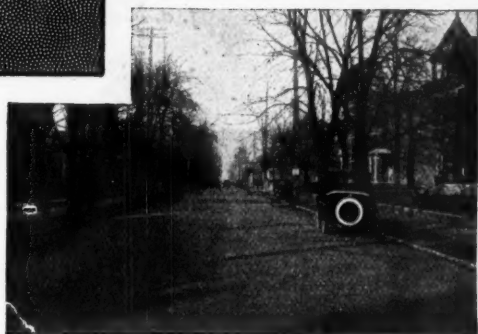
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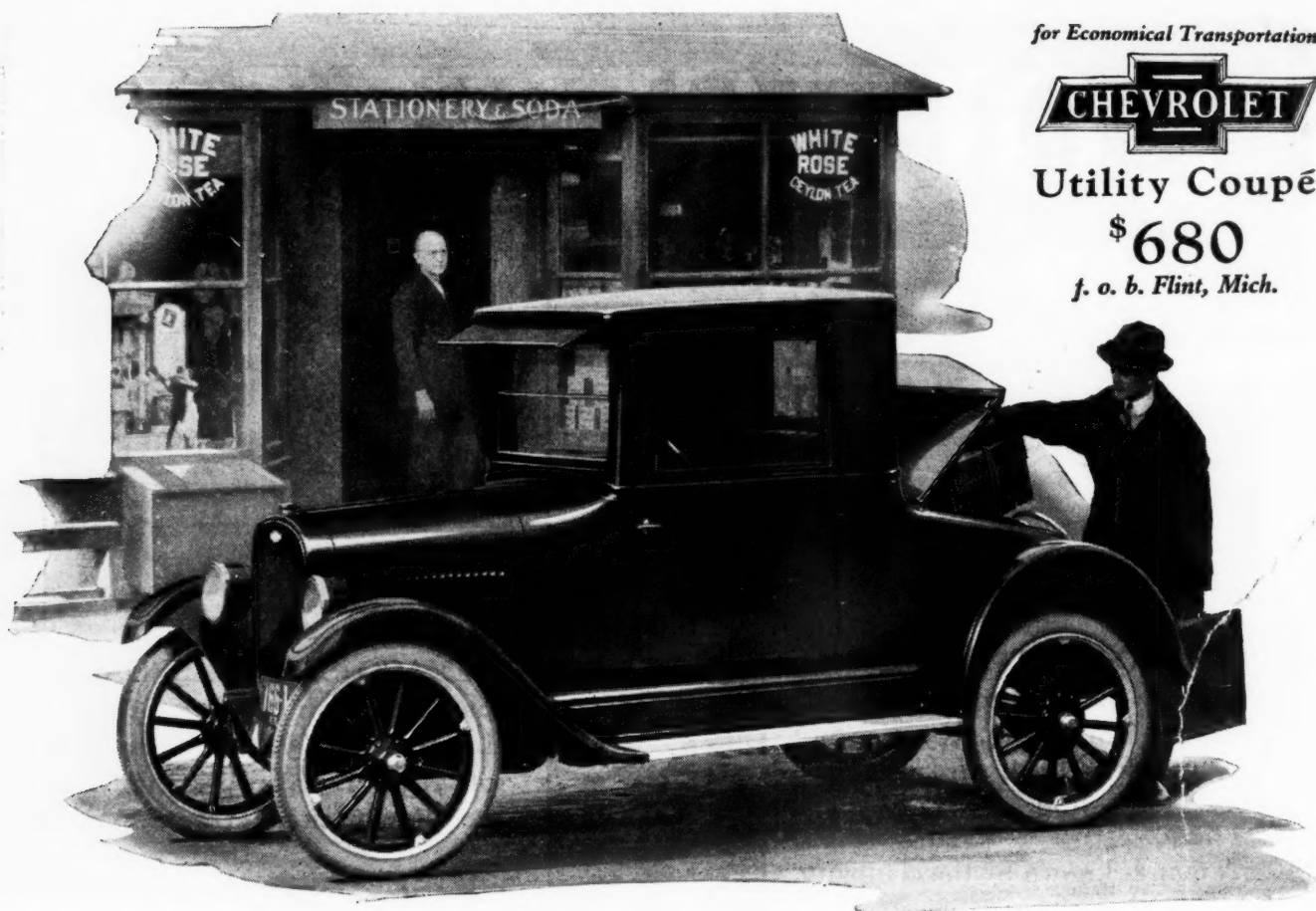
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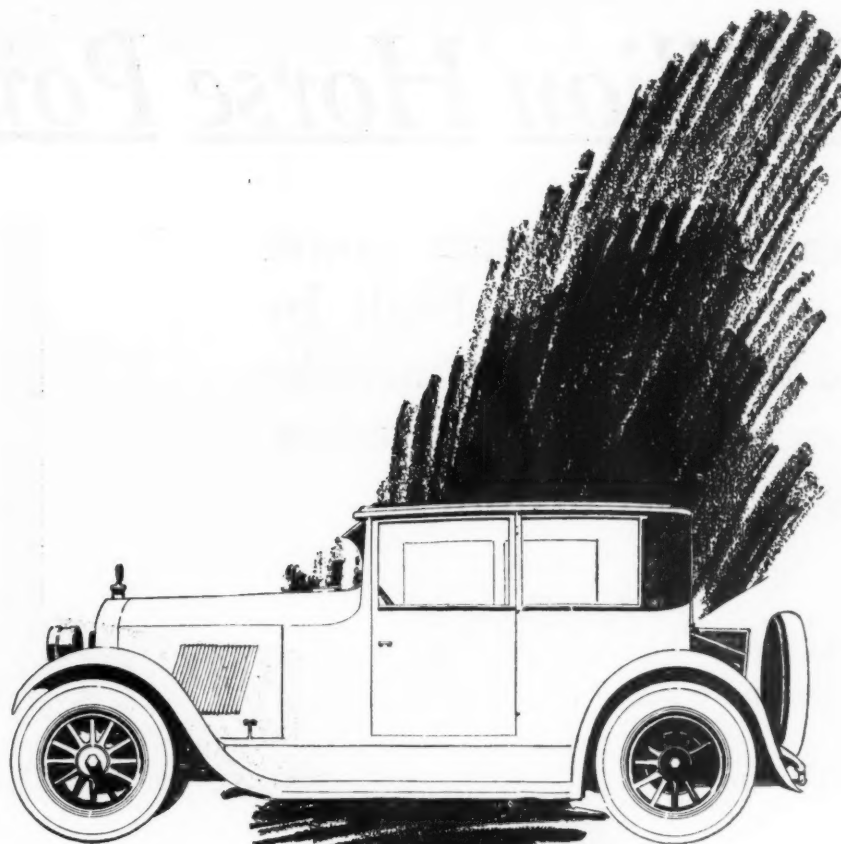
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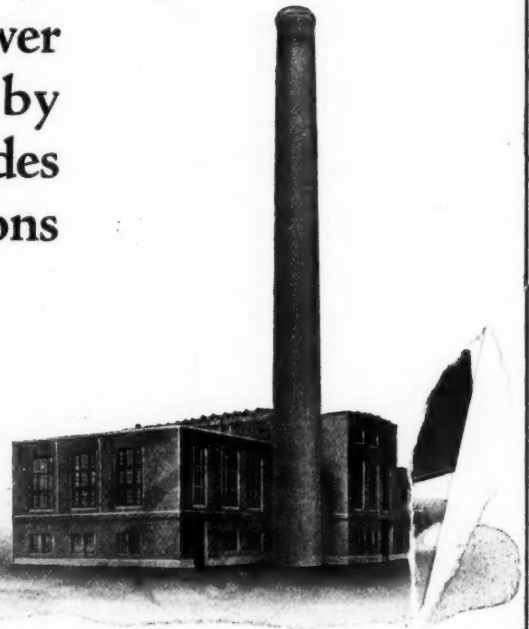
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Volume LXXXIII

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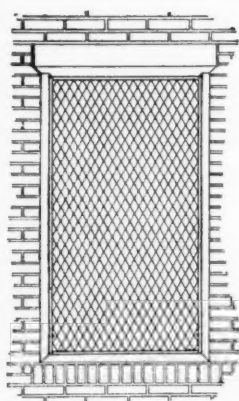
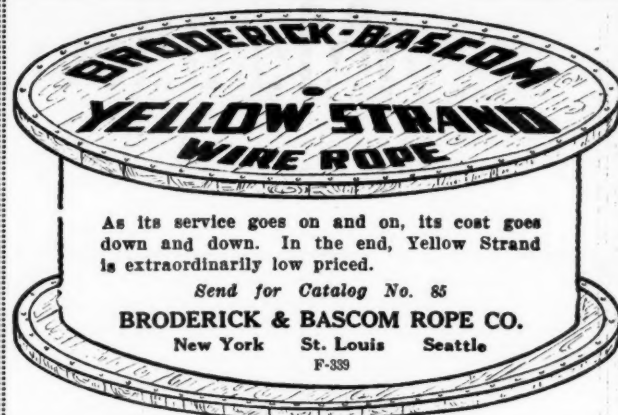
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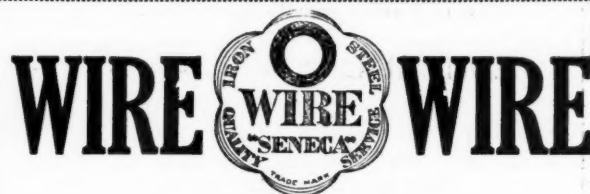
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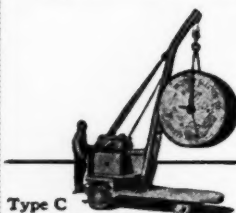


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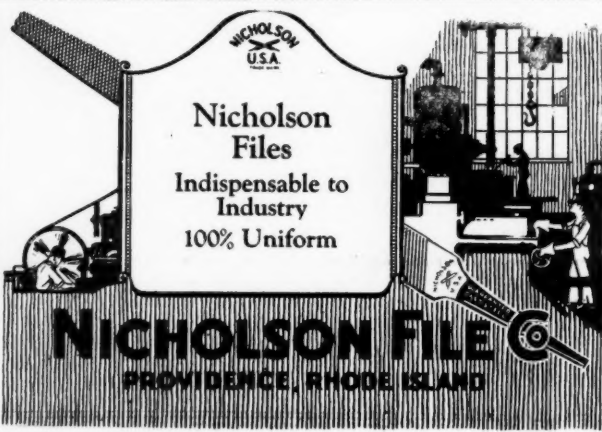
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A VITAL QUESTION.

E. S. Fuller,

Attorney and Counselor at Law.

Savannah, Ga., February 16.

Editor Manufacturers Record:

Your first opening sentence, addressed "To Southern Fathers: Are you training your boy to read about the South?" prompts me to ask the question of Southern mothers and fathers: Are you training your boys and girls to read and study the Bible—both the Old and New Testament?

E. S. FULLER.

THE WAY MILLIONS OF AMERICANS FEEL AS TO FRANCE.

MR. CHARLES R. HOOK, Vice-president and General Manager of the American Rolling Mill Co., of Middletown, Ohio, writes:

"I am so delighted with your article, "Why France Was Justified in Going Into the Ruhr District," in the MANUFACTURERS RECORD of February 8, that I cannot refrain from expressing a little of this joy to you personally.

"I think I told you that I spent a month this past fall in England, France, and Italy. I came back firmly convinced that we are making a very great mistake in not supporting France and had made a very great mistake in not giving her assurances which would have made it unnecessary for her to go into the Ruhr.

"I have felt a very keen personal responsibility for doing what I could to counteract German propaganda and as far as possible to spread the truth with respect to the situation over there.

"After reading Frank Simonds' article in the February Review of Reviews, I personally ran a full page ad in our local paper, and now I expect in some way to get this remarkably fine statement of yours before this community.

"Again, thanks for your courage and understanding."

MR. BARUCH'S SUGGESTIONS ABOUT HENRY FORD AND MUSCLE SHOALS.

IN his report to Bernard M. Baruch in favor of the adoption by the Government of Mr. Ford's Muscle Shoals proposition, Mr. L. L. Summers presents the subject from some interesting angles. He discusses various propositions, which have been suggested, from that of the abandonment of the whole Muscle Shoals development or the operation of Muscle Shoals and the nitrate plant by the Government, to the Ford proposition, taking the view that up to the present Ford's is the best submitted.

Mr. Summers recognizes the fact, as he frankly says, that the Ford offer is ridiculous in view of the value of this great national asset, but he adds "to whatever the fact may be due, whether to shortsightedness, expediency or what not, no offers have been forthcoming from any group to make possible the adequate development and operation of the plant." He recognizes the almost limitless potentialities of the territory tributary to Muscle Shoals, and on this point adds:

"So unusual and of such potential importance is this location that it is unique alike in industry and in war. It will be difficult to realize the value of these assets under Government operation, for the Government cannot embark in competition with these industries."

Criticizing very strongly the efforts of some interests to prevent the development by Ford of the Muscle Shoals opportunity, Mr. Summers writes:

"No industry undertakes improvements willingly. It seeks to continue the old methods until competition forces the adoption of the new. In other words, progress is made only when it is necessary to survive. What right have a combination of coke ovens in this country to address Congress and advocate against a development in which they are not interested beyond what it may possibly do to the market in which they compete? Is it because they fear this new competitor will be a failure, that its product cannot compete and their attitude is only one of patriotism and public disinterestedness, or is it that they fear that the product of this great plant will be made at a price lower than that which obtains in this country and they see the possibility of sacrificing profit to meet the competition?

"What right has any industry in America to tell an industrial captain that he cannot make improvements; cannot cheapen the cost of production when they are unwilling to make the effort themselves? The opposition to the development of Muscle Shoals must, then, be purely selfish and purely financial, and no progress in industry is made by following this line of procedure. There should be an ultimatum issued to American industry that the vast hydro-electric power plant will be created by the development of Muscle Shoals; that it is so favorably situated to make many products that American industry must take notice: that the absurd value at which it is being offered means that any who have the courage and the ability have an opportunity to receive their reward. Therefore, if American industry, knowing as they must know, the fundamental advantages of Muscle Shoals—advantages that were known to

the experts of the War Industries Board who insisted that a plant be located there it could be utilized in the near future and that it would be a factor in American industry—if they refuse to act, if their only attitude is that they will not undertake this themselves, then they cannot prevent someone else entering this field simply because it will affect their interests. Who has the right to say that this attitude shall have any consideration?

"Every industrial corporation interested in products that can be made there is familiar with Muscle Shoals and yet they have refused to act; they have refused to come to the help of the Government to take over at a proper consideration this very valuable asset. They seek to delay until some day when it has been abandoned and may be taken over when the leases of power at Niagara cannot be renewed at a rate which will justify electro chemical industries competing with the public demand."

Mr. Summers takes the ground that the liability behind Mr. Ford's offer is probably limited to his proposed \$10,000,000 company and says: "His personal guarantee does not seem to extend further than this, nor does he commit his heirs and assigns beyond this. There is protection in case the contract is violated, but this protection will evidently be limited to the assets of the corporation. On the other hand, any work that Mr. Ford does will not be thrown away. The assets at Muscle Shoals will be increased to whatever extent he has expended his energy judiciously. It is certain that unusual hydro-electric power will be almost donated to him and that a vast electro metallurgical industry will be founded by him at a ridiculous compensation to the Government, but at a compensation which, up to the present time, exceeds that of any other offer. If Mr. Ford will make mixed fertilizer by using the phosphate rock and nitrogen and prosecutes research for securing potassium from feldspar, he can make complete fertilizers at a price that will be effective. But his immediate possibilities lie in the electro chemical and electro metallurgical field for which this plant is so advantageously located."

Mr. Baruch in a letter to the MANUFACTURERS RECORD takes the ground that it is not necessary for Mr. Ford to put his individual or personal wealth back of the proposition, but in that respect we emphatically disagree with Mr. Baruch and with Mr. Summers, unless Mr. Ford will make his guarantee in the shape of capital in the proposed company several times larger than the \$10,000,000 as indicated by him. We do not believe that any company, or any individual should be given so vast a property by the United States without backing the contract for development to a far greater extent than \$10,000,000; and if any other organization, or combination of organizations should make a better proposition than Mr. Ford has made to the Government, we believe that their direct liability, free entirely from any liability which they may have to bondholders or others, should be far greater than \$10,000,000. That is too small a sum for guaranteeing the carrying out of a contract on securing a property which would be of such immense value as the Muscle Shoals development, with the work which the Government has expended, and must continue to expend upon the building of the dams, the construction of the plants already there, and the utilization of the Tennessee River for transportation purposes.

We agree, however, with Mr. Summers in the unwisdom of any organization of coke makers, or other vested interests, opposing a development of this kind because lessened cost of production might interfere with their individual profits. No concern has a right to seek to retard our material development because some new form of development may lessen its profits.

One of the most serious mistakes made by the railroad people has been their fight against river transportation, for fear that its development would retard the prosperity of the railroads. Their position in that respect is just as foolish as would have been a position of the old stage coach owners in opposing through legislative action the building of rail-

roads because railroads would interfere with the vested interests in stage coaches.

Every man who invests money in business must recognize that there are inevitably great risks in connection therewith. No inventions over night change the currents of trade. The railroad official or security holder who is hostile to river improvements because they would lessen the income of his road is putting his personal profit before his patriotism. Whatever most advances the general welfare of the country, should receive the commendation of every patriotic man, even if these new inventions wipe out his investment or his profits. That is not too broad a position to take by men who love their country above their private business. It was for this reason that the MANUFACTURERS RECORD vigorously criticized the action of large industrial interests in opposing, much of it through anonymous propaganda, the acceptance of the Ford offer by the Government.

In the matter of the Ford proposition and Muscle Shoals, the position of the MANUFACTURERS RECORD has been that while Ford gave life to the corpse, while he awakened the whole country to the potentialities of Muscle Shoals, the Government should seek from him and from others the best possible offer; and whatever offer be accepted should surround it with every possible safeguard to protect the interests of the people as a whole against any individual or company which controlled Muscle Shoals.

The question is so big that it must be given the broadest consideration regardless of any one individual or any one company, or any dozen companies, but every legal and moral right existing now, if any exist, should be safeguarded to the utmost, for this nation cannot afford to make "scraps of paper" of any contracts it has made.

WORLD-WIDE INFLUENCE.

D. R. HERCOD, of Lausanne, Director of the International Temperance Bureau, writing to the MANUFACTURERS RECORD in regard to the report of the World's Anti-Alcoholic Convention in Toronto last fall, says:

"I was likewise very glad during my last sojourn in the United States, from April to July, 1922, to procure copies of your inquiry among prominent business men and leaders of education as to the value of prohibition. I am now engaged in preparing a book on American prohibition which will appear in four different languages, and I shall be glad to use your inquiry, of course with due acknowledgement of my sources of information. If you should ever publish anything, more especially of economic value on prohibition, I shall be very glad to receive a copy of it."

This is but one of many illustrations that are coming to us from all parts of the world as to how "The Prohibition Question Viewed from the Economic and Moral Standpoint" is influencing the thought of men everywhere on this great issue. We still have a good many copies on hand available for those who want them for their own use, or to send out to friends; and the believers in prohibition must fight as they never did before to maintain what is essential to the maintenance of law and order in this country and to the upholding of that amendment which marks one of the greatest steps in human advancement.

NEW YORK INNS IN OLDEN DAYS.

[From Valentine's Manual of New York.]

Four pence a night for bed
Six pence with Supper
No more than five to sleep in one bed
No Boots to be worn in bed
Organ Grinders to sleep in the Wash house
No dogs allowed upstairs
No Beer allowed in the Kitchen
No Razor Grinders or Tinkers taken in

The foregoing shows a somewhat different situation from the palace hotels of today. We have journeyed a long distance since then.

Cover Page of the Secret Report of the Federal Reserve Interests on May 18, 1920

SO widespread has been the interest aroused by the publication in last week's issue of the amazing revelation of secrecy enjoined upon those who in "the conference of the Federal Reserve Board, of the Federal Advisory Council and the Class A Directors of the Federal Reserve Banks," that it has seemed worth while to publish this photographic reproduction of the cover page of that report.

In last week's issue we said that only 100 copies of that report had been published and that the type had then been distributed. That statement was made by the secretary of the Board to one of the gentlemen present, who was informed that under instructions from the Board no more copies are available and that "the type for the pamphlet had been taken down, only 100 copies having been printed"

Even the one hundred copies of this report were not published until the present year, after the retirement of former Governor Harding. It would seem that the old Board was not even willing to permit any information to leak out in regard to this momentous meeting, trusting that the secrecy enjoined upon those in attendance would forever prevent the press and public from getting any information as to the secrecy which Governor Harding enjoined upon those who controlled the destinies of the financial and business interests of this country and indeed of the world. However unwise were the plans formulated at that meeting the most damning factor was the demand that every man there should keep his

mouth shut except to his fellow directors. What limitless value this inside knowledge could be to those who knew the facts! though we trust that a sense of honor kept them from making financial use of their knowledge.

The more this revelation is studied, the deeper is the damnation of the discussion which took place that day in

connection with the secrecy enjoined upon those in attendance.

Just as a little sidelight upon the matter we give an additional extract from the address made at that meeting by Mr. James A. Alexander of New York, one of the brutally frank expressions of opinion in the discussion in the conference.

Mr. Alexander, after emphasizing the need of restricting credits, said:

"But nevertheless, unless there is a very substantial contraction and a very definite and positive announcement made in some way to users of credit in this country, they may become more hopeful again that the situation is not one to be feared, and they will feel justified in going ahead and making very substantial and enlarged commitments for the future. Speaking for myself, and I think I voice the sentiment of the entire board of the Federal Reserve District of New York, we think that at the present time the commercial rate, the discount rate, should be raised."

Mr. Alexander advised that it should be raised to 7 per cent. Then in reply to a question from Governor Harding if that rate would penalize anybody who could not liquidate on account of the lack of transportation facilities, Mr. Alexander made this statement:

"Well, I am afraid something is bound to be penalized in order to bring about production. A percentage of one per cent is not a very heavy penalty in the way of an interest charge, but it is a very positive announcement that the credit situation is such that further expansion must be prevented and

that curtailment should be had wherever possible.

"I do not think we need to consider that question unduly, Governor Harding; any more than we need to unduly consider the condition of these people who bought Government bonds and have seen them fall to eighty-five."

Consider for a moment the position of a great banker and

TRANSCRIPT OF STENOGRAPHIC MINUTES OF

Conference with the Federal Reserve Board of the Federal Advisory Council and the Class A Directors of the Federal Reserve Banks

Held at Washington, D. C.
May 18, 1920



WASHINGTON
GOVERNMENT PRINTING OFFICE
1923

a director of a New York Federal Reserve Bank suggesting that the Federal Reserve System did not have to give special consideration to the welfare of the 22,000,000 people who had bought Government bonds and who had seen them broken down to 85 by reason of credit deflation! Mr. Alexander, it will be noted, insisted that a **further expansion must be prevented, and with a blindness which seems inconceivable to any ordinarily intelligent man he expressed the thought that it was necessary to bring about this increase in rates and a decrease in credits "in order to bring about production."**

How any sane man can couple increased production with decreased means of production—and credit is the means—we are unable to comprehend. But that was the doctrine taught by a number of people at that meeting. However, we believe that none of them were quite so frank as to suggest that the Federal Reserve System did not have to unduly concern itself with the losses of those who, by the power of the Government and the power of the banks, in a spirit of patriotism, had bought to the limit of Government bonds.

HOW TO SAFEGUARD OUR COUNTRY AND ITS IDEALS.

THAT this country is in danger of drifting away from its moorings, losing its reliance upon the Constitution, and following the false teachings of false leaders is recognized by every thoughtful man. Probably no one in the country has given more thought to this subject and spoken on it more frequently than Mr. Harry F. Atwood of Chicago, whose lectures entitled "The Constitution Our Safeguard," and whose books "and Orderly Progress or Hopeless Chaos, which?" "Back to the Republic," "Safeguarding American Ideals," and "Keep God in American History," would do limitless good if every man and woman in the country could hear these lectures and read Mr. Atwood's small but strongly written books.

In the book entitled "Keep God in American History," Mr. Atwood presents many striking facts as to how the American people from the day when the Pilgrims landed at Plymouth Rock, down to the present time, through our national leaders have recognized the dependence for its safety upon the guidance of Almighty God. It is an infinite pity that the facts which he gives could not be taught in every school as well as in every church in America.

Elsewhere in this issue we are publishing a brief suggestion from Mr. Atwood as to the desirability of forming a "Constitution Anniversary Association" for the purpose of developing throughout the country a study of the Constitution and its relation to the life of this country. Mr. Atwood has suggested that it would be extremely desirable for such an association as this to be at work organizing throughout the country efforts to devote a portion of the week ending with September 17th annually, in schools and elsewhere, to the study of the Constitution of this country and the discussions by some of the most brilliant statesmen that the world has ever known in connection with its adoption. It is thought that such an organization as this could from time to time issue bulletins of information, encourage editorial discussion, arrange special public meetings, and promote the study in our schools of the Constitution from a broader standpoint than that which is now occasionally heard even in the colleges of the country.

During one of the heated debates in the Constitutional Convention, after weeks of turmoil and acrimonious discussion, Benjamin Franklin appealed to the delegates in con-

vention to recognize that without the guiding hand of God their work would be in vain; and he urged that the convention through prayer should seek the blessing of the Almighty upon its deliberations. This fact in connection with the spirit of seeking Divine guidance all through the nation's history would, it is thought by Mr. Atwood, be a sound reason why ministers of the Gospel, during the annual Constitutional Convention week, should trace the relation of this dependence upon God to the amazing progress of this nation in spiritual and material things. They would emphasize to the present generation how the great leaders of the past always sought God's guidance, and how in the present day, under Bolshevistic teachings, sometimes read in newspapers and sometimes heard in the pulpit, casting aside all thought of dependence upon God, our future is endangered.

If such an organization as proposed by Mr. Atwood, and which it seems to us should be under his active leadership, could be brought into operation, immeasurable good could be accomplished for our nation. His suggestion should call forth a careful study of the whole matter on the part of the business people of the country who recognize the need of safeguarding our nation from the dangers which face it.

There is no specific organization of this kind in the country; no organization whose purpose is to concentrate the study of students in the lower schools as well as in the colleges and universities upon the real history of our country viewed from the standpoint of the study of our Constitution, and the debates in connection with its adoption. No organization is seeking to interest the newspapers of the land in this vitally important subject. No political party is carrying on any propaganda in its interest. No Rotary or Kiwanis Club, no women's clubs are doing the work Mr. Atwood has suggested. We have no doubt he would be glad to correspond with any one who may be interested in the subject, and elaborate his views, briefly presented elsewhere, as to the need of such an organization.

ACTION OF NEW YORK CHAMBER OF COMMERCE AGAINST PROPOSED AMENDMENT ON TAX-EXEMPT SECURITIES.

The Weil, Roth & Irving Company,
Cincinnati, February 6.

Editor Manufacturers Record:

We are in receipt of notice advising that our subscription is up and we are pleased to return under separate cover our renewal. We are also very pleased to have your letter of the 29th, giving brief outline of your policies in connection with the great problems of our country.

In regard to your invitation for suggestions from subscribers we would like to say the following:

In the New York Times, January 30, there appeared a very interesting article with reference to action by the Chamber of Commerce of New York State against removing tax exemption feature from municipal bonds.

This article not only expresses the opinion of this firm, but, we believe, of all the investment dealers in general, and we would like to see it given much publicity. If you could conveniently do so, we would like to see a reproduction of same in your paper.

THE WEIL, ROTH & IRVING COMPANY.

In the MANUFACTURERS RECORD recently, we published a letter from a New York business man explaining the action of the Chamber of Commerce of that city in passing a resolution protesting against the proposed amendment to the Constitution forbidding the issuing of tax exempt securities by states and municipalities. This as we then said is extremely important in the light of the fact that there was a definite contest in that body between some big banking interests of New York and the merchants or general business men which was brought out very clearly in that letter.

Big National Construction Activities Could Be Made to Yield Profit Enough to Pay Our National Indebtedness.

SOME years ago, when Cassatt saw the almost limitless opportunity for the creation of wealth for the Pennsylvania Railroad by the expenditure of many millions of dollars, he did not hesitate to borrow the money in order to carry out his constructive plans. James J. Hill created an empire of wealth by similar work. E. H. Harriman created wealth for the country, wealth for the railroads and for himself by his superb ability and his broad vision in spending hundreds of millions upon the railroads which he controlled.

Wealth is created by expenditure of capital, of muscle, of brain. Wealth is destroyed by a niggardly withholding and the failing to utilize opportunities. Dr. Conwell of Philadelphia has delivered more than five thousand times his lecture on "Acres of Diamonds," in which he graphically tells the story of many men who have accumulated fortunes by creative work of brain and muscle.

What has been true of individuals, men of vision like Cassatt and Hill and Harriman; what was true of Cecil Rhodes and of many other constructive geniuses, can be made to become true of this country. As a nation we hold more boundless possibilities for the creation of wealth than any other country or any combination of other countries on the face of the earth. But our development in its largest extent is being hampered because as a nation we have been niggardly in expending capital for the purpose of making big profits.

We are paying out millions of dollars for rent for post office and other governmental operations, when we could save money by the construction of adequate buildings for all of these purposes. Postmaster General Work has recently pointed out how the expenditure of money for the building of much needed post offices in different parts of the country would actually save millions of dollars to the Government annually. And yet Congress halts and the people hesitate as though an expenditure of capital was a dangerous thing, regardless of the big income that this investment would be sure to yield to the nation!

Nature has provided our land with many rivers, the intrinsic value of which for water transportation is beyond calculation, but they are almost valueless until channels are deepened and widened so that steamers and barges may transport freight regularly, without regard to high or low water, and at cheap rates. It is probably quite safe, and within reason, to say that no other nation on the face of the earth claiming to be civilized would have been so short-sighted in the utilization of our rivers as we have been.

Take the mighty Mississippi, the "Father of Waters," cutting through the very heart of what is universally recognized as the richest region on earth, considered from all standpoints. That river should years ago have been deepened and made available for a traffic many times that which has ever been carried upon it. We have lost billions of possible wealth by the failure to spend a few hundreds of millions upon the deepening of that and other tributary rivers.

The plan for the Great Lakes-St. Lawrence waterway development offers an opportunity to enrich the central West

beyond even the dreams of a Harriman or a Hill, or a Cassatt; to enrich it to a degree which would make the prosperity of today twenty-five or thirty years hence seem but poverty.

Through the mountain regions of Virginia and Kentucky and Ohio and Pennsylvania run rivers which properly utilized would carry an enormous traffic, at a rate which would relieve the pressure upon the railroads and lessen the cost of delivering goods throughout all the regions tributary to them, and from which their products could be distributed throughout this and other lands.

For a century or more the need of an Isthmian Canal was realized by far-seeing men. In vain they struggled to show to this country the importance of building a canal at Panama or Nicaragua. Year after year the "hold-backers" fought every scheme looking to the construction of one of these canals, and if it had not been for the Spanish War, which forced upon the nation's attention the necessity of a canal in time of war, it is doubtful if even Roosevelt could have ever carried through its construction. Its enormous value to the nation is now fully realized. Its opening meant a new epoch in world affairs.

But that canal is in a dangerous zone. Earthquakes might destroy it. The time is coming when its traffic will far exceed that of today, probably overcrowding its ability to handle ships that seek to pass through it, for we are but in the infancy of our material development. All that has been accomplished is merely the beginning of national progress. The time has come when we should seriously consider the cutting of a canal across Nicaragua. Its advantages are many. Its cost is not prohibitive, notwithstanding the statement put out from Washington that the high cost of construction would make the cutting of this Canal an impossibility at present.

There is no likelihood of any serious decline in the cost of construction work for years to come, and any decrease would only indicate a breaking down of business, the decrease of employment, and the lessened demand for the products of our farms and factories; and no one should ever desire to see that condition come about.

We could finance the building of the Nicaragua Canal exactly as we did the Panama Canal, and if there is a man in the country that has the power and the daring and the genius of achievement possessed by Mr. Roosevelt, he could lead the nation to the acceptance of the necessity of building that canal, and building it now. We believe that this work, vast in its magnitude, world-wide in its influence for good, safeguarding us against the danger of the breaking down in peace or war of the Panama Canal as a means of transportation, might well appeal to President Harding as a great constructive undertaking, the carrying out of which would redound through the centuries to come to his honor, as much as the Panama Canal will forever redound to the credit of Mr. Roosevelt.

For ages unnumbered, until within the last few years, our

mountain streams and rivers ran "their courses idly to the sea." Power almost limitless in extent and in value was like a dead asset, yielding no profit to individual ownership or to the country. But everywhere now we are harnessing our rivers and our mountain streams. We are turning into developed wealth heretofore undeveloped assets. We are creating prosperity by the expenditure of capital. Private enterprise is putting into the development of water power sums vastly greater than the nation is putting into its whole river and harbor improvement operations.

One man, James B. Duke, has invested in hydro-electric development in the Carolinas \$70,000,000, which has brought about an increase in prosperity through the building of new enterprises many times greater than his total investment. But this nation halts and quibbles, and the Administration is reported as opposing the expenditure of a beggarly \$50,000,000 for carrying on the work of river and harbor improvements over an area of three million square miles.

We have boundless resources, greater than any other equal area on the face of the earth, but we cannot afford, say the pessimists, to develop them. We must not go contrary to the budget, say those who are budget-tied in their horizon. We have no money to spend for river and harbor improvement, say those who are fighting that means of transportation, and those who parrot-like cry "pork barrel."

Henry M. Flagler years ago came into Florida and found on the east coast a wilderness. He expended about \$75,000,000 or more of his own money and left an empire of wealth. He was a dreamer, as looking far ahead he saw what could be done by investing capital, and now from Jacksonville to Key West prosperity reigns everywhere; wealth far beyond his investment has been created for the public, and his individual investment is annually and enormously increasing for the benefit of his heirs.

Henry H. Rogers put \$30,000,000 into the building of a railroad from Norfolk to the coal fields of West Virginia. He opened up an enormous traffic, to the benefit of the world by increasing its supply of fuel; and his railroad is destined to become immensely valuable, while it has at the same time created enormous wealth for the public.

And so the story runs wherever men of vision and of capital pour out millions into creative work, even though in many cases they have to borrow the money with which to turn their dreams into realities. This nation, however, under false leadership, refuses to invest capital except in a niggardly way for the creation of wealth. It refuses to utilize the assets which Heaven has given to us. It spends a few paltry millions, stretching them over long periods of time, doubling and quadrupling the cost of doing the work, and holding the national progress back generation after generation because no man of sufficient genius has led the country forward into doing what individuals have been doing through the ages.

There is no shortage of national financial resources. The bonds, which could be issued at a low rate of interest by giving them circulation privileges, would be eagerly grabbed by the banks and the money expended would be returned to the country manifold, as in the case of the Panama Canal.

Why is it that men of genius in private life do great and

masterly things, but the nation holds the dollar so close to its eyes that it will not do for itself, and its people, and the world, the things on which the individual man risks his individual capital, as did Flagler and Rogers and Duke and other constructive leaders?

Are we as a nation weaker than some of the individuals in it?

Are we more cowardly as a nation in investment of money for big profits to the nation than is the individual who invests his own capital, and borrowed capital, risking every dollar perchance he has in the world, or borrowing every dollar he can secure to carry out the work which his vision shows him will yield profits to the country whether he individually reaps the benefit or not?

We would that there might arise in Washington, whether the man to do it be President Harding or some other constructive leader, an individual great enough in mentality and vision and in backbone, to dare to lead the country into doing big things for the big profits and the big prosperity which these big things would bring to the whole nation.

President Harding has an opportunity at the present time rarely vouchsafed to any man in human history. We wonder if he will have the vision to see it and the daring to utilize it.

MISSISSIPPI RIVER TRANSPORTATION HAS GREAT POTENTIALITIES FOR THE COUNTRY.

MR. A. L. CROCKER, president of the Minnesota Reclamation League, of Minneapolis, in a letter to the MANUFACTURERS RECORD writes:

In looking over the last issue of the MANUFACTURERS RECORD, this morning, I was very much impressed with the showing made, for the use of the motor truck, in the short hauls, in place of the costly and cumbersome railroad service for such work.

Enclosed I send a copy of a pamphlet that I have gotten out in thousands for stirring up our people to get behind this new boat and barge line, to run this year to St. Louis and then on to New Orleans.

As president for four years of the Minneapolis Board of Trade, I became deeply interested in the possibilities of river traffic and with especial reference to relieving the great central Northwest comprising sixteen states, that are landlocked except by the use of the Mississippi River.

Having followed this matter for twenty-five years, and having lived at St. Louis as constructing and operating engineer, I followed up the river possibilities all the time, and on March 19, 1917, I called the first meeting in New Orleans of what has developed into the Mississippi Valley Association.

My work in St. Louis was in blast furnace, Bessemer steel plants, and dealt with heavy traffic.

One-half of my heart is in New Orleans, the other at this end of the river, and for twenty-five years I have studied the vast possibilities of the river for benefiting the whole Mississippi Valley.

My advisors have been such men as Lyman E. Cooley, of Chicago, Mortimer G. Barnes, formerly of New York, etc. etc.

It was I who first conceived the idea of getting Mr. Barnes to Chicago, and through Mr. Joy Morton and Gov. Lowden, we got him to Chicago. I have twice had Mr. Barnes come to our state, in studying with our best geologists, our state reclamation, and we are still working at it.

I don't believe you could do anything that would help New Orleans and the river between more than promoting this river transportation.

Henry Ford has just bought 167 acres on our river bank on which to put some of his works, and he is going to put on a line of barges.

Let me add, in closing, that the MANUFACTURERS RECORD is almost next to my Bible.

EUROPEAN AND WORLD RAILROAD FACILITIES COMPARED WITH THOSE OF THE UNITED STATES.

AS to transportation—than which there is no more interesting subject in the United States today, when the railroads are breaking winter records week after week in the number of cars laden with revenue yielding freight—if this country had in proportion to area railroad mileage equal to Belgium the lines here would be of a total length of 759,000 miles, instead of the 253,000 which now exist, for the little kingdom which Germany invaded on her way to France possesses one mile of railroad line for every four square miles of area, while here we have a mile of line for every twelve miles of area. There is a lot of railroad construction yet to be done in America before the new world is as thoroughly equipped with the instruments of transportation as is the old world in proportion to area; twice as much as we have must be constructed to stand equal with Belgium, which is one of the several countries on the European continent densely supplied with railroad lines. But, if we would realize just what are really dense railroad facilities we must consider England, where there are $2\frac{1}{2}$ square miles of area for every mile of railroad, so that if we were as well equipped as that country we would have very nearly 1,200,000 miles of line instead of 253,000.

In Europe railroads were built years ago in an intensive fashion. The continent already possessed a dense population; towns and cities were everywhere and had been for ages, so that when the locomotive was a success the people were immediately provided with the new means of moving themselves and their products from place to place. The result of this intensive railroad building is seen in the facts already quoted here and in the additional facts that Germany has a mile of railroad for every $5\frac{1}{4}$ square miles of area, Denmark has a mile for every $5\frac{1}{4}$ miles, Holland for every $6\frac{1}{4}$ miles, Switzerland for every 7, Italy for every $7\frac{1}{4}$, France for every $8\frac{1}{4}$, and Austria-Hungary for every 9 square miles of area. All this constitutes an impressive picture of human energy and activity. Any of these countries is better off than is the United States when railroad mileage is considered in relation to area, and even European Turkey is more liberally provided, for there we find a mile of railroad for every 10 miles of area.

But there are many other countries which are not as well provided with railroad facilities as is our own. Next after those already named, but not having mileage in proportion to area equal to the United States, is little Portugal, which has a mile of railroad for every 19 miles of area. Spain, Sweden and Roumania each have a mile for every 21 miles of area. Bulgaria has a mile for every 24 and Japan has one for every 25. Greece has a mile for every 34 square miles and New Zealand one for every 36. India and Mexico each have a mile of line for every 50 miles of area and Chile for every 51 miles. Argentina for every 52 miles and Russia a mile for every 53 miles of area. Norway enjoys a mile of railroad for every 62 square miles of her area, South African Union a mile for every $63\frac{1}{2}$ and Canada a mile for every 93 square miles of her surface. Next there is a big jump in the figures, for Australia has a mile of

railroad for only every 157 square miles of area, Brazil for every 202 miles and lastly China a mile of line for every 527 miles of area.

Now, although there are ten countries more liberally provided with railroads with regard to their respective area than is the United States, there are only four countries, viz., Argentina, Australia, Canada and New Zealand, which have smaller population per mile of line. It is interesting especially to observe that the population per mile of line in England, France and Germany is nearly the same; in Switzerland it is somewhat less than in either of these three; Belgium and Holland nearly tally in the matter of population per mile of line; Austria-Hungary and Turkey are close together in the records, but in the adjacent countries of Italy, Greece, Bulgaria, Roumania and Russia, the population per mile of line appears excessive in comparison. Denmark and Norway are close together, but in Sweden the population per mile of line is comparatively small, while Spain ranks close to Norway in this respect, although Portugal rates much like Roumania and Italy. Japan has the largest population per mile of line, with India second in this respect. The accompanying table presents the facts impressively.

Countries.	Square Miles to each mile of railroad.	Population for each mile of railroad.
Argentina	52	366
Australia	157	239
Austria-Hungary	9	1033
Belgium	4	2588
Brazil	202	1629
Bulgaria	24	3060
Canada	93	223
Chile	51	833
China	527	4226
Denmark	$5\frac{1}{4}$	1134
England	$2\frac{1}{2}$	1670
France	$8\frac{1}{4}$	1555
Germany	$5\frac{1}{4}$	1620
Greece	34	3532
Holland	$6\frac{1}{4}$	2750
India	50	8645
Italy	$7\frac{1}{4}$	3071
Japan	25	8988
Mexico	50	987
New Zealand	36	352
Norway	62	1196
Portugal	19	3244
Roumania	21	3037
Russia	53	3741
South African Union	$63\frac{1}{2}$	709
Spain	21	1224
Sweden	21	625
Switzerland	7	1441
Turkey	10	1808
United States	12	418

Europe points the way for the United States to attain the highest efficiency as to railroad transportation. Traffic conditions here are intolerable. During the past autumn it was impossible to adequately move the crops because of the lack of facilities, so that the consequent losses to the farmers were enormous, and now the railroads cannot move fuel as rapidly as it is needed, with the result that the different localities have to be rationed with respect to their coal requirements. While much of this inefficiency is due to the shortage of equipment there is also much of it due to lack of track facilities, second, third and fourth track, or else passing sidings, to enable trains to reach their respective destinations without delay. Not only are the line conditions inadequate, but at terminals there is a conspicuous lack of facilities to enable cars to be unloaded and reloaded with promptitude so that the duty of railroads to the public can be performed as it should be done. If America will emulate the example of Europe and build more railroads in propor-

tion to area—this in addition to increasing equipment—our national railroad system will more nearly serve the needs of the people, although it is not to be expected that they will be fully met for a long time, if ever, because of the annual increase of population, business and industrial activities.

ENORMOUS GRAIN EXPORTS.

GRAIN exports are pouring out of this country on an amazingly large scale. The shipments from January 1 to February 24, as shown by the report of the Department of Commerce, were as follows:

Barley bus	2,417,000
Corn "	12,248,000
Oats "	853,000
Rye "	8,285,000
Wheat "	18,993,000
Flour (barrels)	2,421,200
Total, Flour, bus.	53,265,000

In referring to enormous shipments of grain, (and it should be borne in mind how completely these heavy exports set at naught all the talk of the free traders who said we would not be able to export, and the talk of those who have claimed that our agricultural depression was due to lack of European demand), the Pennsylvania Railroad, under date of February 21, reported the movement of the grain over its lines as "at a volume exceeding all previous records for the handling of this form of traffic."

During January that road delivered to its elevators at Baltimore and Philadelphia 10,858,700 bushels, which constitutes the heaviest movement of export grain ever recorded for the Pennsylvania Railroad in a single month, and exceeded the amount handled in January, 1922, by 4,530,000 bushels. For the first two weeks in February the grain shipments by that road to Baltimore and Philadelphia exceeded by 740,000 bushels the shipments for February, 1922.

An extremely interesting fact in connection with this traffic over the Pennsylvania is its first shipment of export grain via Norfolk. This consisted of 230,000 bushels, which moved from Buffalo via Harrisburg, Pa., Perryville, Md., and Cape Charles, Va., and thence by car ferry to Norfolk. At that point it was delivered to the new municipal elevator, which has been leased by a large grain exporting firm.

The building of grain elevators as municipal enterprises at New Orleans and Norfolk, the development of municipal wharves and warehouses at these points and at Baltimore, are very suggestive of how municipalities are now beginning to do many things which were formerly supposed to be essentially private or railroad enterprises.

HEAVY INCREASE OF FOREIGN IMPORTS.

THE total increase in imports for October, in which are included the nine days in September after the Fordney tariff bill went into effect, has previously been given as amounting to \$157,000,000 over October, 1921; but the details are now for the first time available in the report just issued by the Department of Commerce.

These figures show an increase of importations for October and nine days of September of nearly \$50,000,000 from Europe, of \$27,000,000 from North America, \$17,100,000 from South America, \$54,600,000 from Asia, over \$2,000,000 from Oceania, and \$1,200,000 from Africa.

Standing out conspicuously are the phenomenal increases from some individual countries, France showing shipments to us for the month of over \$6,000,000 in excess of the same month of 1921; and Germany a \$5,400,000 gain, while the United Kingdom sent us \$26,300,000 more for October, 1922, than 1921. From Canada we gained \$17,000,000 in importations; from Cuba \$6,500,000; and from Brazil \$9,200,000, while from Japan we made the phenomenal increase indicated by

the jump of imports from October, 1921, of \$17,076,000 to \$46,954,000 for October, 1922, including the few days of September.

As previously stated, the imports for November and December also showed a heavy increase over the corresponding months of 1921, but the details by countries are not yet available.

These enormous gains in our import trade under the Fordney tariff bill, and the increase in exports which has been going on since that bill was passed, show that this tariff legislation is far exceeding in good effects all that its advocates promised, and is overwhelmingly disproving all the theories of its free trade opponents.

TOTAL VALUES OF IMPORTS OF MERCHANDISE BY GRAND DIVISIONS AND PRINCIPAL COUNTRIES.

(October, 1922, includes imports under new tariff from September 22-30).

Imports from Grand Divisions—	Month of October 1921	Month of October 1922	Ten Months Ended October 1921	Ten Months Ended October 1922
Europe ..	\$66,769,062	\$116,524,708	\$621,955,135	\$799,562,769
N. America ..	53,442,795	81,050,013	646,662,995	684,701,317
S. America ..	17,711,915	38,860,631	241,809,320	280,120,018
Asia	45,325,197	99,998,590	489,977,394	671,990,988
Oceania ..	1,915,755	4,625,058	31,069,585	42,715,918
Africa ..	2,842,905	4,023,699	29,238,640	48,041,144
Total	\$188,007,629	\$345,082,699	\$2,060,704,029	\$2,527,132,154

Principal countries—	Month of October 1921	Month of October 1922	Ten Months Ended October 1921	Ten Months Ended October 1922
Belgium ..	\$3,128,987	\$6,525,919	\$29,384,546	\$44,168,629
Denmark ..	636,660	578,471	7,797,573	2,424,515
France ..	10,677,225	17,494,771	116,471,072	118,782,898
Germany ..	7,624,770	13,021,186	66,994,130	96,415,979
Greece in Europe ..	1,786,089	630,560	19,519,836	15,211,666
Italy	6,916,946	7,257,582	51,289,295	48,192,283
Neth'l'ds ..	4,694,994	7,790,996	37,195,899	52,764,636
Norway ..	1,090,095	1,852,831	10,982,916	11,115,661
Russia in Europe	17,915	138,499	98,229
Spain ..	2,441,952	3,353,574	17,948,493	21,320,517
Sweden ..	2,123,754	3,342,823	14,001,391	22,207,051
Switz'l'd ..	3,500,471	4,097,870	33,860,518	33,010,343
United Kingdom ..	19,215,491	45,536,819	192,282,207	292,165,198
Canada ..	29,416,212	46,809,126	279,964,502	292,350,034
C. America ..	1,913,104	2,243,555	29,783,956	27,334,193
Mexico ..	9,468,206	12,258,225	97,015,915	108,940,666
Cuba ..	10,218,984	16,738,235	206,872,099	232,914,387
Dominican Republic ..	636,080	366,600	13,959,066	4,244,900
Argentina ..	2,994,560	8,407,804	50,815,594	67,528,812
Brazil ..	5,822,499	15,012,692	72,405,197	90,305,569
Chile ..	1,302,283	6,423,856	42,165,414	44,545,090
Colombia ..	3,770,799	4,149,202	35,232,957	30,880,178
Peru ..	1,646,023	1,280,261	11,556,004	13,175,129
Uruguay ..	342,390	973,947	11,921,837	13,145,895
Venez'l'a ..	1,030,526	1,438,189	9,163,595	11,278,899
China ..	9,160,133	15,999,991	88,520,143	111,229,577
Brit. India ..	4,453,952	12,086,885	63,890,317	73,027,696
Straits Settlements ..	4,324,541	9,473,929	45,344,630	76,564,840
D. E. Ind's ..	1,369,766	2,503,631	26,534,240	27,674,662
Japan ..	17,076,877	46,954,181	188,506,320	286,672,242
Phillip' I. ..	4,317,933	6,061,663	42,312,668	51,796,582
Australia ..	858,099	3,423,669	19,806,157	31,301,716
N. Zealand ..	868,600	921,143	8,595,441	9,418,397
Br. South Africa ..	161,721	470,332	7,454,791	5,954,700
Egypt ..	1,992,901	2,469,715	12,357,713	24,438,262

ANALYSIS OF THE FOREIGN COMMERCE OF THE UNITED STATES FOR THE MONTH OF OCTOBER, 1922.

(October, 1922, includes imports under new tariff from September 22-30.)

Groups	Month of October 1921	Month of October 1922	Ten Months Ended October 1921	Ten Months Ended October 1922
IMPORTS				
Crude material for use in manufacturing	\$59,498,880	\$137,378,152	\$689,136,517	\$926,658,334
Foodstuffs crude, and food animals ..	23,326,163	37,464,568	241,923,088	265,939,285
Foodstuffs partly or wholly manufactured ..	23,863,343	30,324,242	317,165,180	329,464,345
Manufactures for further use in manufacturing	27,665,307	65,684,640	281,589,463	436,867,251
Manufactures ready for consumption	51,666,778	71,952,425	514,324,873	552,310,878
Miscellaneous	1,987,158	2,278,672	16,564,908	15,892,061
Total imports	\$188,007,629	\$345,082,699	\$2,060,704,029	\$2,527,132,154

THE ONLY SAFE FOUNDATION FOR BUSINESS AND NATIONAL SAFETY; A LAY SERMON.

HOWARD S. WILLIAMS, editor of the Hattiesburg (Miss.) American, one of the leading papers of that State, in a letter to the MANUFACTURERS RECORD telling of the remarkable wave of religious revival which is sweeping over Mississippi, reaching men and women of all classes, and referring to Mr. Gypsy Smith, Jr., said:

"He is doing an immense work in this city and people all over Mississippi are thinking of spiritual things as never before, even the coldest business men are beginning to take a more active interest in church affairs and in their relation to their fellow men. And the working people, too, are doing the same thing and there is a better feeling in Mississippi today between men of all classes than ever before."

From other sources, and especially from other papers, comes the story of a wonderful revival of religion in Mississippi. It is well that the secular papers of that state should give as much attention to the subject as they are doing, for the religious revival of the people of a state should be regarded from no other point of view than that of business it is fundamentally important.

The very foundation of individual national and world prosperity is religion. Without the guiding influence of religion and the power which it has over mankind this nation would soon sink back into barbarism and no business in it would be safe. Eliminate from any community the churches that are in it and property of all kinds would become practically worthless and the bats and the owls would soon take possession of the city. This is the lowest possible point of view from which to study the influence of religion on the individual or on the world, but it is a view which a business paper can stress even from the strictly business standpoint.

This country needs more than anything else a genuine nation-wide revival of old-time religion—the religion that accepts the teachings of the Bible as Divine; a religion that makes the employer honest in dealing with his employees and the employee equally as honest in dealing with his employer; a religion that makes every adherent of it through and through honest and honorable in every transaction and in every relation of life; a religion which uplifts, which makes men realize that in the literal fulfilling of the teaching of the Golden Rule there is safety, and nowhere else is there safety for business or for society. We need a religion which will give men the moral backbone to stand out in the open and fight wrong wherever entrenched, regardless of their personal safety or their business. Every man who seeks to fight wrong under the guise of some secret organization hasn't the moral courage to fight in the open and lacks the inspiring power of true religion.

Looked at in the larger sense the spirit of the Golden Rule must dominate every office and every factory and every farm if there is to be honesty and honor among men.

The man who tries to cheat his employee or his employer, the man who tries to sell bad goods for good goods, the man who tries to take an advantage of his customer or any man with whom he is dealing, is by that fact sapping his own moral fibre.

Only through a nation-wide and world-wide revival of the religion of the Cross can the world be saved from chaos.

The world is in turmoil, partly economic but largely through the failure of religion to function fully in the hearts and lives of those who profess it.

If the revival which is wide-spread in Mississippi, stirring to the very depths the social and business life of that state, is genuine, it will lift Mississippi to a better relation between the whites and the blacks, between employers and employees, between the sellers and the buyers, between the producers

of foodstuffs and the consumers of them. If it is genuine it will make cleaner and more wholesome the legislation of the State and will drive out of office by an open fight any corrupt men who may have used their public trust for their private gain. The influence of such religion will be felt in a higher sense of honor in business matters, in cleaner lives, in a new consecration in men and women toward the development of those things which make for the betterment of mankind, which bring help to the sick and the poor, which speak the kindly word and do the loving deed every day and every hour.

If the revival which is sweeping over Mississippi does not accomplish these things it is a false revival, one of emotion rather than of rebirth of men and women; but we believe it is genuine, that it is deep and abiding, and that it will mean that Mississippi is a safer state in which to do business, a safer place in which to live, a state of cleaner lives, a state whose influence to a greater extent than ever before will be wide-spread for good.

May Mississippi in this respect prove to the nation what a real revival of religion would do if it should sweep over the entire land and cause men to love their neighbors as themselves, to love to do good rather than evil, to live in constant thought of the Golden Rule, which in its fullest interpretation is feasible in all walks of life. Some years ago Vice President Willis King of the Jones & Laughlin Steel Company, one of the great steel makers of the country, delivered an address before the American Iron and Steel Institute in which he took the ground that the Golden Rule is applicable in every relation of life between the employer and employee, between the seller and the buyer, and between competitors who in friendly rivalry would carry on their work. Mr. King's address was enthusiastically applauded and we doubt not that many a man at that meeting vowed that in his life the Golden Rule should henceforth prevail. If Mississippi, stirred by the State-wide revival, will prove to the country, as Mr. King claimed, that the Golden Rule can be applied to every transaction of life it will render an immeasurable service to mankind.

Every man who with or without disguise joins in beating or maltreating, or shooting, (or even threatening to do so), other men because of alleged criminality, is himself a criminal, and the spirit of religion does not exist in him regardless of how loud may be his professions, or how saintly may sound his psalm-singing. No man who commits such acts can honestly kneel before the throne of Almighty God and ask God's blessing upon his criminality; for the man who undertakes to enforce by illegal means even the things which might deserve legal punishment cannot escape the condemnation of Almighty God, for in committing these acts he is breaking down the morality, the honor, and the sovereignty of the State. "Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy mind, and thy neighbor as thyself," is the Divine command, and no man who loves his neighbor in this way can by any possibility commit the crime of lynching, or maltreating, or murdering his neighbor, even though his neighbor may deserve legally the utmost punishment that can be inflicted. But this punishment must be by the law.

Mob lynching may not be merely the crime of hanging illegally a criminal, for lynching the law may be committed by the spirit of lawless punishment of men thought to be criminals though the law has not so declared them.

No man having the true religion of God in his heart and guiding his life, can commit the crime of illegal punishment without sapping his own moral character and breaking down to the extent of his influence the moral standards of his own children and the people of his own community.

The lawlessness of a land which found expression in 9500 murders in this last year as compared with 63 in England

has largely come from that mob spirit which dares to destroy the sovereignty of the State by taking into its own hands the punishment of a criminal.

Men are shot down in cold blood because of some trifling, or sometimes perhaps serious quarrel over trifling things. Men are murdered apparently without compunction of conscience, and the murderer to a large extent goes free because we are not enforcing our laws. But the spirit abroad in the land which causes these shocking murders, greater than are known in any other country in the world except perhaps in Russia under present conditions, is the natural fruitage of the seed which has been sown by mobs in all parts of the country.

Until American people come back to a recognition of the Divine command "Thou shalt not kill" and that further statement "Whosoever hateth his brother is a murderer; and ye know that no murderer hath eternal life abiding in him," we shall fall as a nation to do our duty to God and man. Any man or woman professing to be a Christian, who wilfully commits these crimes of murder, or of murdering, by lynching the murderer, or outrager, must inevitably merit the condemnation of a righteous God. There are some who stand in the pulpits professing to proclaim the Gospel of Jesus Christ, who preach hatred; there are some who sit in the pews and profess to be followers of Christ, who are deliberately, premeditatedly violating the commands of God. They who knowingly live in sin cannot plead the redeeming sacrifice of Christ until in spirit and in truth they have sought to follow His teachings.

Every member of a mob, hooded or not, who joins illegally in punishing others has no right to ask the blessing of God upon his criminality. It would be a mockery of God Himself to do so.

PEASANT FARMERS OF PARTS OF EUROPE LIVING BETTER THAN FORMERLY.

FOR the first time in their lives the peasants of Roumania, and Bulgaria, great wheat growing countries, and some other regions of southeastern Europe, are freely eating bread from the wheat which they have grown, according to a report issued by the United States Department of Agriculture. These peasants have heretofore raised a very large amount of wheat on the big estates of the wealthy land owners, but they got no individual benefit of it in the way of having flour bread. The wheat was shipped to other parts of Europe in order that the land owners, out of the money received might live in luxury and spend their time in Paris and other resorts.

Now, however, these peasants are changing the situation. They are beginning to eat bread; and as the report of its expert to the Department of Agriculture says:

"In all countries in Southeastern Europe, with the exception of Bulgaria, this same condition of affairs obtained—the peasant was undernourished, his diet was without variety, and food that he should have consumed to keep himself in good physical condition was taken from him to meet excessive taxes or exorbitant land rents. He was the actual slave of the large land owner and the state.

"Today that is changed, the peasant is beginning to eat bread. After centuries of submerged individuality he is taking his place among his own peoples as a man, despite the obstructions of the great lords and the opposition of the cities. The peasant's wife is demanding to be better clothed, even buying satins that she calls 'the cloth that goes swish-swish.'

"The fact that the peasant is eating bread is causing a revolution throughout Southeastern Europe that extends even into Middle Europe. This revolution is better known as the land reform. The peasant, brought to a realization of his power by the great war, demanded enough land on

which to produce a decent living for his wife and children. His demand was a threat and he got the land. He has begun to feed his wife and children not only bread, but also meat—a former Sunday luxury. He is growing upon his land the things he wants to grow for his own use. He isn't growing these things the way the American farmer would grow them; but he's doing the best he can according to his lights—lights that have been intentionally dimmed by those in power for centuries.

"All this is having a peculiar effect upon the national economics of the various countries in which he lives. The big estates organized their operations about wheat production as a center, the wheat to be sold for cash and the cash to be expended in the great luxury centers of Paris, Venice, Berlin, but not in the country where the wealth was produced. Consequently these countries were left poor, their resources being pumped out annually to give a few weeks of pleasure abroad to the upper classes. These countries were undeveloped industrially; their industrial development was in no way commensurate with their resources of raw materials and labor. The result was that they imported most manufactured necessities, depending upon grain exports to balance their trade.

"Then the great change came. The peasant, who had formerly slaved to produce the exportable grain excesses, began to work for himself and in the interest of his own immediate family. The great excess acreage seeded to wheat was cut down to more nearly that required to meet local needs. Naturally also there was a drop in the yield per acre and then on top of this the peasant and his family began to eat wheat. This has played the mischief with export wheat and upset the balancing of trade deficits and made national budgets knotty problems for overwrought finance ministers.

"The drop of about 9,000,000 bushels exportable wheat in the Danube basin alone is a serious matter for those nations, especially Roumania, which depended upon wheat more than any other product to keep its money at par. But when one considers that these governments were not of the people, but were for and by the ruling class, and when one realizes that the peasant, the common man, is better off today than he has ever been before, one can not help but feel that the time has come for the governments to adjust themselves to the new order."

The farmers of these countries as shown by an official report published in this paper last week have been paying off their indebtedness very freely. American farmers in the meantime have been more nearly bankrupted than ever before.

There is a lesson to America in these extremely interesting facts. In this country the tenant farmer has been increasing in numbers, but he has scarcely made enough out of his work to secure some of the comforts which the peasant farmers of Europe are now getting. For the last few years especially his life has been one of slavery, which the people of the cities, like the overlords of Europe, have failed to understand. There is a danger in this situation, and it behooves those who realize the seriousness of it to see that the conditions in this country do not reach a point where the farmers and the farm laborers and the tenant farmers will conclude to follow the example of the peasants of southeastern Europe in forcibly becoming land owners.

A PAPER THE FARMERS CAN READ TO ADVANTAGE.

Lewisburg, W. Va., February 22.

Editor *Manufacturers Record*:

I enclose my check for \$6.50 covering the renewal of my subscription to your excellent magazine, I consider this a good investment.

I wish every farmer in this country could read your paper. You champion their cause and put them in possession of facts that are vital to the welfare of agriculture. Your editorials are fearless, and state the unvarnished truth.

J. W. RADER, Civil Engineer.

France Justified by Every Legal and Moral Right.

AN AMERICAN EDITOR, AFTER VISITING FRANCE AND ENGLAND, SHOWS HOW GERMAN PROPAGANDA IS AT WORK IN ENGLAND AND AMERICA AGAINST FRANCE.

[Mr. R. M. Bryan, Eastern Manager of The Black Diamond, has lately returned from a study of industrial conditions in Europe. In response to a request from the Manufacturers Record for his views on the Ruhr situation he has written the following illuminating story.—Editor Manufacturers Record.]

By R. M. BRYAN, Eastern Manager, The Black Diamond, New York.

Hardly had the news gone out from Paris early in January of the failure of the reparations conference held there by the allied governments, which failure meant that France must go ahead and invade the Ruhr to force collection of her just reparations, than it seemed to me that every British paper, with but one exception, began to bubble with articles that could be read only in one way, that belittling the move that France was taking. Not only did these papers, which I was then reading in Paris, reek with matter antagonistic to France, but I was surprised to find some of the Americans with whom I came in contact emitting the same kind of talk.

"I am of course pro-French," they would invariably say, "but I think she is making a mistake. She is pressing Germany too hard. She will never succeed by her tactics. If she would wait, she would get paid reasonable reparations without going to all the expense that the invasion will create."

The first question that arose in my mind was, what has come over these people? Then being a publicist, I began to appreciate that since the signing of the armistice we have had going on, on both sides of the Atlantic, the greatest work of propagandizing nations that the world has ever known, and the more I began to think of it, the more obvious it became that the campaign had been successful.

Here were now papers and individuals actually confessing in fact that we were all mistaken.

Germany had not surrendered; she had won the war.

That, in effect, was what the conversations that I heard from English-speaking people and what the gist of the matter that I read in the English printed papers would indicate.

Moreover, some of them even went on to hint that France is militaristic; that perhaps Germany had to start the war in self-defense.

It seems hard to believe.

For four years we had fought the insidious German propaganda at home, and now within four years of the ending of the war we had become its victims!

I had only left America the middle of December. Surely, I thought, there is no such general sentiment at home as I find among the English people and the English press over here in Europe. I did not recall that the American people were so antagonistic to France before I left home. Thus I thought that when I returned I would find no such sentiment among the press, or among the people, as I found in England, and among English people in France. But in this I was mistaken, as I shall relate later on.

The first thing that struck me in the new flood of German-inspired propaganda that hit one in the eye or ear almost every moment, in England especially, where I went the week following the failure of the Paris conference, was that the French were not able to operate the Ruhr industries; that they were the inferiors of the Germans when it came to the management of coal mines, steel mills and railways. They would make a great mess of it, the predictions would go, and in the end spend a great deal of money and show no results.

I found not a few news articles in the papers, most of them showing evidences of having been written in Germany, and having a "kultured" inspiration, telling just what a big job the French had tackled, and how little they would accomplish.

I wondered if these British papers that were now so gladly giving space to the conveyance of this kind of sentiment would

have published anything of this nature back in the fall of 1914 and continuing up until the end of 1918. In those days, I was very cocksure, the British were inclined to believe that the French were not such an inferior race, and moreover, that they never faltered once they set out upon a quest.

Over home we Americans had usually talked of France as having been able to hold the German army for almost a year until the British were able to get ready to tackle her, and that even for a year and nine months after we got into the fight she had furnished our armies with their guns.

An inferior nation could not have accomplished this, I thought. But perhaps after all, my information was false. Maybe France made a feint of fighting, and that the British, Belgian and American armies were responsible for the beating that until January of this year I had steadfastly believed Germany had deservedly got.

Now it appears, so I was told by the papers and by the people, even if France was given the right by the Versailles treaty to go into Germany and enforce collections of reparations, she shouldn't do it. "Let her wait. Let Germany recover. Give her time. Don't hit her while she is down. Even if France has the right, and the law is on her side, let her wait awhile. It will be an economic mistake for her to invade now."

And while I was reading this, and listening to this kind of talk in Europe, I was thanking my stars that I would hear no such talk as this when I returned home. But in this I was doomed to disappointment. The world is never too wide for insidious propaganda.

So I set about before leaving Europe to get at the bottom of the reparations question. Was I in error in holding to the belief that France was entitled to just reparations?

In Paris I went to those business men that I felt could give me the right information on the question. I did not seek the politicians. I did not seek the "pro-bonn-publicos."

Those men, who in their respective lines, carried on international trade, and who, I knew, were in position to tell me this or that about events and incidents, all bearing on the question, I found willing to answer my questions. Most of these men were not strangers to me. This was my third trip of investigation to France since the armistice.

All of them deplored that England had seen fit to break away. They expressed no resentment against her. One man said:

"England thinks that this is not the time. She is perhaps conscientious in this. The English think that the German will pay in the future and that he does not need coercion."

"We know the German better than do the English. We have fought them twice in the span of a half century. We have done business with them all our lives. We know that the German will not pay except at the point of the bayonet. We have waited four years without coercion. We have had four years of bickering, of whining, of obstruction and denial. We are now going to apply the bayonet."

I went to England, and for a week I talked nothing but the Ruhr and the reparations question with representative business men interested in the world's affairs. Most of those doing an international trade were backing the stand of the government. Not that they were unfriendly to their ally, or that they denied that she had been badly treated, and

that she was entitled to huge indemnities, yet they couldn't see how she could succeed. It was a big job she had undertaken. She would have been better off to have waited.

This was the sentiment I found among the big business men. The man in the street I found to be a firm advocate of France's stand. These men expressed their sentiments by saying, "France is our ally. She has been badly treated. We have no right to desert her. We should see her through. We hope she gives the Hun his just deserts."

Everywhere I found predictions from the big business people that France would make a failure of the invasion. Her move would disturb world business. Notwithstanding that England stood to gain trade by the interruptions that the invasion would cause to France, Belgium and Germany, they would rather forego this new business than break the trend of betterment in world conditions that was apparent. It was after a week of this that I returned to France.

Here for another week I talked every hour of the day, almost, with those who knew what was going on in the Ruhr, and who knew what was going on at home.

Some of these men were naturally anxious to get the views of the English people to whom they knew I had talked on my visit over there.

Some of them laughed at the prophecies of failure that I repeated to them. Of the German-originated predictions, as published in the English press, a prominent coal man, who stands high in government counsels on coal reparations, said:

"We had the same kind of prophecies when we took over the Saar and Lorraine coal and steel industries in 1919. The Germans then said that no one but Germans could operate these properties, but you have not heard of any failures that we have made in operating them. We realize that we have a hard job ahead of us in the Ruhr, but we are going ahead, and although we expect resistance of every nature, and that we may have the hardest kind of a fight, we expect to win out in the end."

For nearly twelve years I had been coming to France. This was my third trip since the Armistice. I have also been in Germany since the war. I know England pretty well from an industrial point of view. Before I left France I would set about to find out something about the inferiority of her people.

Try as I could, in practically no line of engineering or of the management of industry and of mines, could I discover that the French are so very backward. I have crossed France in most every direction. Her railways, her industries, her manufactures, were in every way, so far as I could see, in keeping with those of any other European country with which I was familiar, even including Germany. I had visited the French mines. From having nearly twenty years visiting mines in the States, I felt that I was capable of judging a well-built and operated coal plant. There was no inferiority in evidence there.

Thus, as I reasoned, there must be some mistake. I soon hit upon it. France is not inferior. France has, though, one most heinous fault. She has not talked about herself. Her people have not talked about themselves.

The Americans and English have heard so much about German "kultur" and German "superiority" that they now believe that such things exist. Enough for that.

So on the 19th of January, at my little hotel on the Avenue de l'Opera, in writing to my own journal, I said that the operation of the Ruhr would succeed; that France had Germany by the throat, and that her success was believed inevitable. This, written scarcely ten days after the invasion had begun, expressed my sentiments at the end of three weeks unending investigation of the reparation and Ruhr tangles, and now a month later I subscribe to the belief.

On January 19, I wrote:

"As I am writing this hurriedly to catch the steamship Berengaria sailing tomorrow, I am reminded that this monster ship, the sister ship of the Leviathan, now owned by the United States, is a product of German skill, and that the English owners are doing quite a successful job in the way of operating her.

"Moreover, the 'superior skilled Germans' did quite a job of sabotage in the way of damaging the machinery of the former Vaterland when America decided to get into the war. At that time it was their hope that the Americans would be unable to operate the giant ship, and the numerous others that they thought they had ruined for a considerable period, if not for all time. It is of history that American engineers showed such skill in repairing these ships that they were able to do quite a lot in the way of transporting troops and munitions to Europe before the war was over."

"I am led to make mention of these facts at the commencement of this article on the Ruhr coal situation because of the striking similarity of the situation today as compared with 1917. The same German mind that was at work in 1917 to commit sabotage and to spread propaganda is busy now doing both, and in the matter of giving propaganda the widest publicity they appear to have been able to charm the majority of the English and American press into the belief that they have in the Ruhr coal and steel industries, a machine so sensitive that it will not work unless a 'cultured and superior skilled' German touches the spring.

"This to my mind is pure tommyrot, and it is galling to me to find that this insidious German propaganda should be accepted at home and in England by the press as being the pure and unadulterated truth.

"I have been coming to France for more than ten years. I came before the war. This is my third trip since the war. I am going to make an assertion here that may be taken by some as sign of insanity on my part, but nevertheless I feel sincere in making it, and safe in the facts upon which I base it. This is that the French and Belgians are no inferiors of the Germans when it comes to mechanical and engineering skill, when the operation of coal mines is concerned. Therefore, my prophecy, written this 19th day of January, or just a few days over a week since the French army began its occupation of the rich Ruhr section of Germany, is that the French and Belgians are going to be able to get out a great deal more than their allotted 1,800,000 tons of 'reparation' coal per month, and that within a few months they will have built up such an organization in the Ruhr coal fields that they will be able to supply to the Germans a good portion of the former tonnage that they received from these mines. This despite the sabotage, strikes, and other forms of obstruction that the Germans are now preparing to inaugurate, and which they will unquestionably practice before they realize that France has them firmly and safely by the throat."

The above, written more than a month ago from France, still holds. I recognize now that the one serious mistake made by the French and Belgians was that instead of announcing when they entered the Ruhr that the invasion was a peaceful one, that they should have posted that while it was their intention to make the invasion peaceful and that no one was to be disturbed in the pursuit of their regular vocations, that any interference, any acts of sabotage, any disobedience to orders would bring immediate and adequate punishment.

The French and Belgians forgot that they were dealing with people who had been brought up to respect force, and force alone. Had they put themselves on record on the first day of invasion as being resolved to punish promptly and properly all acts of resistance and sabotage, I do not believe that the poor, deluded German people would have adopted the attitude that they did, or that the Berlin officials would have

been so active in attempting to thwart the purposes of the occupation.

It was nearly a month before the French and Belgians decided to use the mailed fist, and now that the Germans have begun to realize that Berlin no longer rules the world, the work of the armies of occupation, as far as quelling resistance goes, will be very much easier. As this is being written, there are signs of a decided betterment in the railway service in the Ruhr, with coal shipments showing a noted improvement.

Fifteen per cent of the miners in the Ruhr are aliens. The Poles form a big majority of these. France is receiving help from Polish mining engineers. Many British engineers have volunteered to help. There is talk of a migration of some of England's 1,400,000 idle men to France, to help her out. Some of these people could be employed in the Ruhr. Germany is accusing France of importing Czechoslovians to the Ruhr.

Thus France may not be shorthanded. She is not short of brain power and of skill in engineering and in organization. We Americans may differ as to her methods. They do things differently but they do them well.

Just a few words about France's position. Germany destroyed one-third of her industries. She was given a judgment against Germany by the Versailles treaty, with the right to levy if Germany refused payment. Germany has not only defaulted in her payments, but has, during the four years since the armistice, adopted every means to avoid payment and to make the world believe that the terms imposed were too severe. She has never made an honest attempt at payment.

For an American bankrupt to practice the methods that Germany has both practiced and condoned over the past few years would mean the invoking of criminal statutes. No means or measures have been left undone to defraud France and the other allies entitled to reparations, of their just payments.

The depreciation of the mark has been a colossal swindle whereby the industrialists have realized billions in real money while the common people have been made paupers. In January the London bankers with international connections estimated that Stinnes had been able to hoard one hundred million sterling (\$500,000,000) in foreign countries, and Krupp and Thyssen each a like amount.

Thus these three industrial leaders have been able, while Germany has fought reparation payments alleging poverty, to hoard away far from the power of confiscation or taxation, a great deal more than the entire German nation has paid France in real money. If three people can secrete a billion dollars in four years, what sum would represent what the other banking and industrial interests in Germany have been able to salt away, in their endeavor to prevent the taxation or confiscation that might be necessary if the German government were to finally decide that the reparation payments must be met?

The swindling of the government by the deferred payments of the coal tax, as brought out after the French invasion of the Ruhr, disclosed how the industrialists, more powerful than the government, were able to make millions by deferring payments until the mark depreciated so that they could discharge their obligations by the use of one dollar where ten or twenty would have been required previously.

The act of the Hamburg-American and North German Lloyd steamship lines, who now pay off their debenture holders with paper marks, may be entirely legal. In the case of the former it is now in position to pay what amounted to \$11,000,000 pre-war, for about \$2,000. Yet these shipping companies are doing a world-wide business, on what is practically a gold standard basis. The German shareholders are, of course, the principal sufferers.

It is incidents like these that make the French determined

in their stand. And yet, in the face of these acts, the British and American press blame France, and acclaim Germany, the victim.

Upon my return to New York, I went into a Broadway picture house. The showing of a picture of a peaceful invasion of the Ruhr by the French army brought forth hissing from all parts of the house. I would not have been surprised at an act of this kind in London. I was astounded that this should happen in an American theatre. I thank God that there were enough red-blooded, solid, back-boned Americans in that theatre on that occasion to drown with their applause the insidious German—engendered disapproval of the French action.

I believe that I can now diagnose the wave of disapproval of France's act. The pro-German newspapers are now free of restraint. They dare say and print anything to serve their masters. The German selling of marks in this country since the war had a double purpose. Not only were the German bankers wanting to get good money for worthless paper, but the German propagandists saw the possibility of just such events as we witness today.

They foresaw that the people could be made to forget the horrors of the German-made war, and that when memories became blurred that leniency would perhaps be shown. They thus reasoned that if the great mass of American people could be made to invest, as they termed it, in German marks, that these people, to see the mark restored in value, would become well-wishers of German policies.

Thus the foolish Americans have bought close to a billion dollars of this worthless paper, and due to this they have let their hope of ultimate profit dwarf their sense of justice and of right, and today we see them applaud the acts of Germany in her criminal efforts to evade her just punishment. They plead in effect that she is the under dog and that she is entitled to sympathy. To what base uses is our so-called American intelligence being put?

I am glad to see among the great mass of editorial ignorance that is found in the American newspaper offices throughout the land today on the French situation that there are some shining exceptions such as the MANUFACTURERS RECORD and BARRONS. I take off my hat to the editorial writer in Barrons who says:

"At last France has the fraudulent bankrupt by the throat, and after a time our 'under dog' sympathizers will become tired of calling a wolf a dog."

And likewise to the editor of the MANUFACTURERS RECORD, who in the issue of February 8 said:

"France has justification on its side from every possible standpoint for having taken possession of the Ruhr district, the heart of the coal and iron and steel industry of Germany. But widespread propaganda—influenced by the German interests and possibly by some countries which were formerly France's allies—is trying to create a false impression by denouncing France for this act, justifiable from every financial and humane standpoint.

"The attack upon France by Germany was one of the most diabolical crimes in human history. Perhaps it has never been matched in all the records of mankind. It was carried out with a fiendish devilishness that smacked of the very sulphurous fumes of the lower world. Wreck and ruin marked the footsteps of Germany's accursed army, not simply the wreck and ruin of ordinary warfare but the wreck and ruin of an effort so completely to destroy France's industries that they would never again be able to compete with Germany. History affords nothing comparable in the completeness and devilishness of this campaign.

"To say that Germany, whose farms and factories were never destroyed, whose land was never invaded, whose business was continued at high pressure during the war and has been busier since the war than any other country in

the world, is not able to meet the reparation bill, is so absurd on its face that it is an amazing thing that any man of intelligence in England or America should presume to defend Germany in this violation of every moral and legal obligation."

United Railways and Electric Company to Install Automatic Substations—Cost Over \$500,000.

The United Railways & Electric Company, has awarded a contract to the Westinghouse Electric and Manufacturing Company of Pittsburgh, for the installation of four automatic railway substations in the downtown district of Baltimore. The installation will require about a year to complete and will cost over \$500,000. This program, said to be in advance of that attained by any other city in the country, is accounted the largest single installation of automatic substations that has yet been made.

Representing the latest advance in the art of railway power conversion and distribution, these substations will probably result in an eventual elimination of practically all manual stations for this service, it is stated. No attendant is required, all operations for starting and stopping the machines being done automatically.

Each of the four stations will consist of two 1500 k. w. rotary converters with necessary transformers and control equipment. When power is required in the trolley wire on the streets supplied from these stations one of the machines will automatically start. As the power demand increases beyond the capacity of one machine, the second machine will start, and as the power demand decreases, one machine after another will automatically shut down. Devices are provided to protect the equipment in the event of trouble.

In connection with these stations, a supervisory control system is expected to be used by which an operator at a central point can know what is taking place in each station and, if necessary, can control them.

The principal advantages, it is said, are better operating conditions for the cars and a considerable economy in the feeder cables required for conducting the power to the trolley wires, resulting from the elimination of substation attendants and thus making it economically possible to install numerous substations of small capacity much more closely spaced than can be done with manually operated stations.

Another important advantage is greater reliability in operation due to the elimination of the human element and a quicker restoration of service following disturbances on the general power supply system.

Automatic substations for railway systems have been in successful use for some time, but they have only recently been applied to heavy city service, notably in Cleveland. The Baltimore installation will be the largest and most important application for this type of service so far made, states the company.

Plans and specifications for the necessary buildings will be prepared by the company and the construction put out to bidders.

Plans \$2,000,000 Hotel at Hollywood, Fla.

Hollywood, Fla.—Plans for the erection of a \$2,000,000 hotel on the ocean front at Hollywood Beach are now being prepared, according to an announcement of the Hollywood Land & Water Company, J. W. Young, president, who will erect the building.

The structure will be fireproof, of concrete construction, and will contain about 500 rooms. Work is expected to begin in the summer.

The New Orleans May Convention of the National Foreign Trade Council.

Mr. O. K. Davis, Secretary of the National Foreign Trade Council, in a letter to the MANUFACTURERS RECORD, says:

"You may rest assured that plenty of attention will be given to Central and South America. As you can see from the program, the most important of the general sessions will deal with European conditions. This is the greatest factor at present in our foreign trade, and no other territory such as South America or the Orient presents problems even faintly comparable in importance to those presented by Europe. Do you realize (I didn't until I looked it up) that in 1921 more American goods were sold to Germany alone, than to Argentine, Bolivia, Brazil, Chile, Colombia, Ecuador, Guiana, Paraguay, Peru, Uruguay and Venezuela combined? Of course, this was a one-sided trade, as we received comparatively few imports from Germany.

"The fact that the convention will be in New Orleans naturally makes it desirable to focus the consideration of detailed problems upon Central and South America. In the group sessions on 'Banking'—'Problems of the Export Manager,' 'Problems of the Export Merchant,' 'Foreign Credits' and 'Export Advertising,' special attention will be given to the relation between these subjects and Latin America. Then too, we are having a special group session devoted solely to trading with Latin America. Under these conditions, I am sure you will agree with me that we will be paying full attention to problems in which the people of the Mississippi Valley are interested. Though again, when you come to analyze that interest, is it not fully as much concerned with Europe as with South America? Our exports of cotton, of grain, of meats, of mineral oil, go chiefly to Europe, and yet those are the products in which the South and Mississippi Valley are primarily interested. For this reason and those listed above, it seemed to us very appropriate to make the central theme of the convention the European Situation; while devoting the principal part of the technical sessions to Central and South America."

West Virginia Bill Would Provide Open Shop and Nullify Present Closed Shop Contracts.

Charleston, W. Va.—A bill has been introduced in the Senate of West Virginia by Senator Dinsmoor of Pleasants County the object of which is to provide for the open shop and which if enacted into law would nullify all existing contracts which provide for the "closed shop" in any industry by declaring such contracts as against public policy.

The measure referred to is Senate Bill 310. In brief it provides that any contract having for its purpose or intent, either direct or by implication, the exclusion of any person or persons, not a party to any such contract, of any person or persons, not a party to any such contract, from entering into or engaging in any useful occupation, trade or business because of the affiliation or non-affiliation or membership or non-membership of such person or persons in any fraternal, religious, labor or occupational organization shall be void and against the public policy of the state.

The effect of such a law would be to vitiate contracts now in existence between mine operators and union miners in certain parts of West Virginia where the agreement between the two precludes the employment of any but miners affiliated with the United Mine Workers.

National Slag Association Elects.

At the fifth annual meeting of the National Slag Association held at Cleveland, Ohio on February 16, the following officers were elected for 1923: President, C. L. McKenzie, Duquesne Slag Product Company, Pittsburgh, Pa.; Vice President, Birmingham Slag Company, Birmingham, Ala.; C. E. Ireland and Secretary-Treasurer, H. J. Love, Cleveland.

\$15,000,000 in Improvements and Additions to Water Supply System of Baltimore Near Completion.

NEW ROADS AND BRIDGES A PART OF DEVELOPMENT WORK—DAM AT LOCH RAVEN WILL CREATE A RESERVOIR OF TWENTY-THREE BILLION GALLONS OF WATER.

The Gunpowder improvement to Baltimore's water supply is fast nearing completion at a cost of more than \$4,000,000. In the near future additional contracts will be awarded which will utilize the remainder of the \$15,000,000 bonds originally voted for such improvements. In addition to the money expended in raising the dam and similar construction, private water works plants in newly annexed sections were purchased at a cost of about \$4,500,000. Extending big feed water mains to all parts of the city involved an expenditure of \$6,000,000. Purchase of 2500 acres of land and the complete cotton mills properties at Phoenix and Warren that will be inundated was made at a cost of \$1,400,000. The Pennsylvania Railroad Company was allowed over \$250,000 for relocating its tracks.

A new filter plant is yet to be constructed at a cost of about \$2,000,000 at Montebello and will require two years for completion. The first contract to be let calls for an expenditure of about \$1,000,000.

This big project was designed to take care of the water consuming requirements of Baltimore for the next ten years, and every phase of the development has been so arranged as to permit of raising the dam an additional 30 feet when the water demand necessitates such an increase in storage capacity.

The Loch Raven dam to impound 23 billion gallons of water, completed last fall was fully described in the MANUFACTURERS RECORD of August 10, 1922. Aside from this major construction project the development necessitated the relocation of 1.5 miles of Pennsylvania Railroad tracks near Phoenix, the relocation of certain roads and bridges, also the construction of new roads and bridges, the purchase of about 4000 acres of land from several scores of owners and clearing the ground of buildings, trees and veg-

etable matter, removing the villages of Warren and Phoenix and constructing a balancing reservoir to limit the pressure.

The first contract awarded under the enlargement program was for the raising of Loch Raven dam on the Gunpowder River from an elevation of 188 to 240 feet, with provisions for later raising to 270 feet. The Whiting-Turner Construction Co., of Baltimore, were the general contractors, and completed the work some 15 months after the letting. The raising of the dam involved the expenditure of \$550,000.

Thomas Mullan, of Baltimore, received contract in September, 1921, for the balancing reservoir, surge tank and shaft, and completed this work in April, 1922, at a cost of \$62,000.

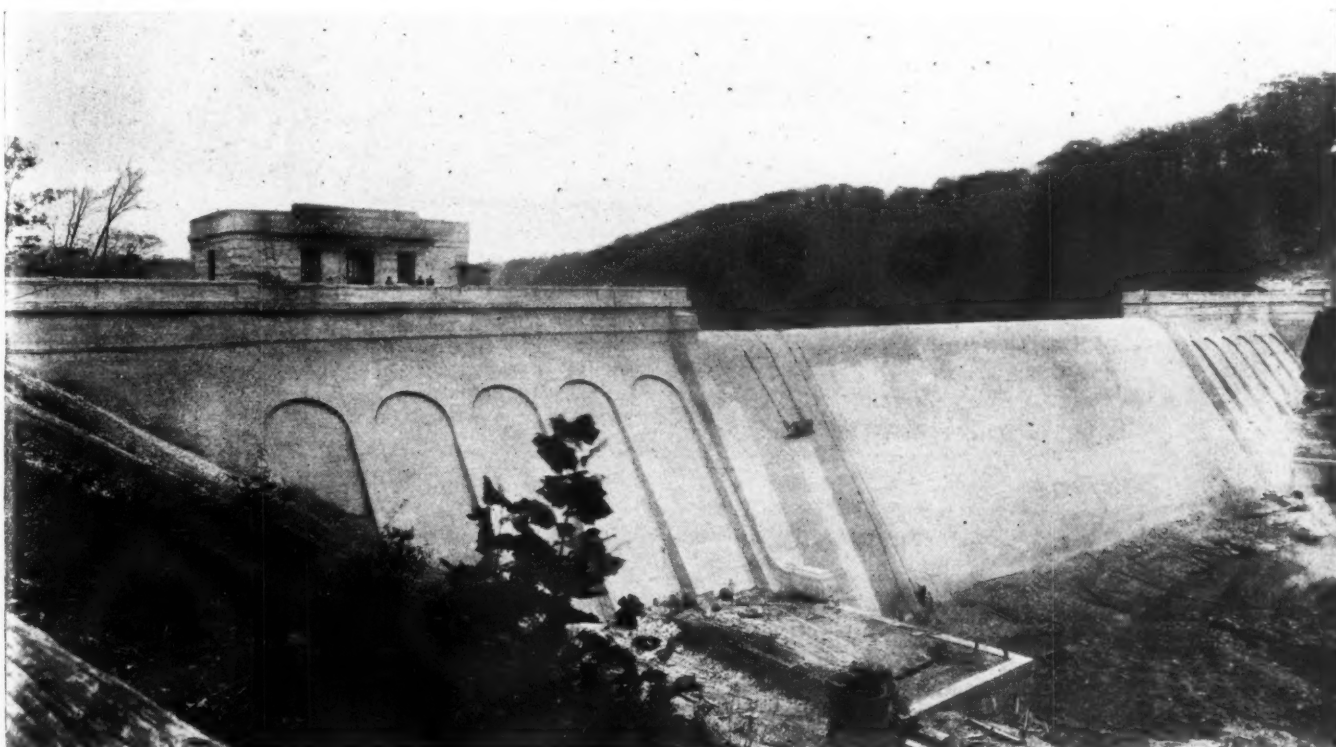
The gatehouse for the dam has just been finished at a cost of \$11,000 by the Whiting-Turner Construction Co.

Within a short time the clearing of about 2500 acres of land forming the water shed will be completed. The timber suitable for firewood is sold and the smaller material, brush, etc. burned, extreme care being taken to guard against decomposition of vegetable matter. This work alone will necessitate the expenditure of \$160,000, which is far below the sum appropriated for the purpose.

An extension of the Dulaney Valley road is being made at a cost of \$137,000. It is 15 feet wide and of reinforced concrete, and is built by Christliff & Ensey, of Baltimore.

On Bridge No. 2 the Commonwealth Construction Co. has placed a reinforced concrete floor costing \$14,000.

The Paper Mill Bridge was completed at a cost of \$140,000. Steel work was placed by the Bethlehem Steel Bridge Corp., and the road and approaches by D. C. McAleer Construction Co. The structure is one spandrel, braced 3-hinge

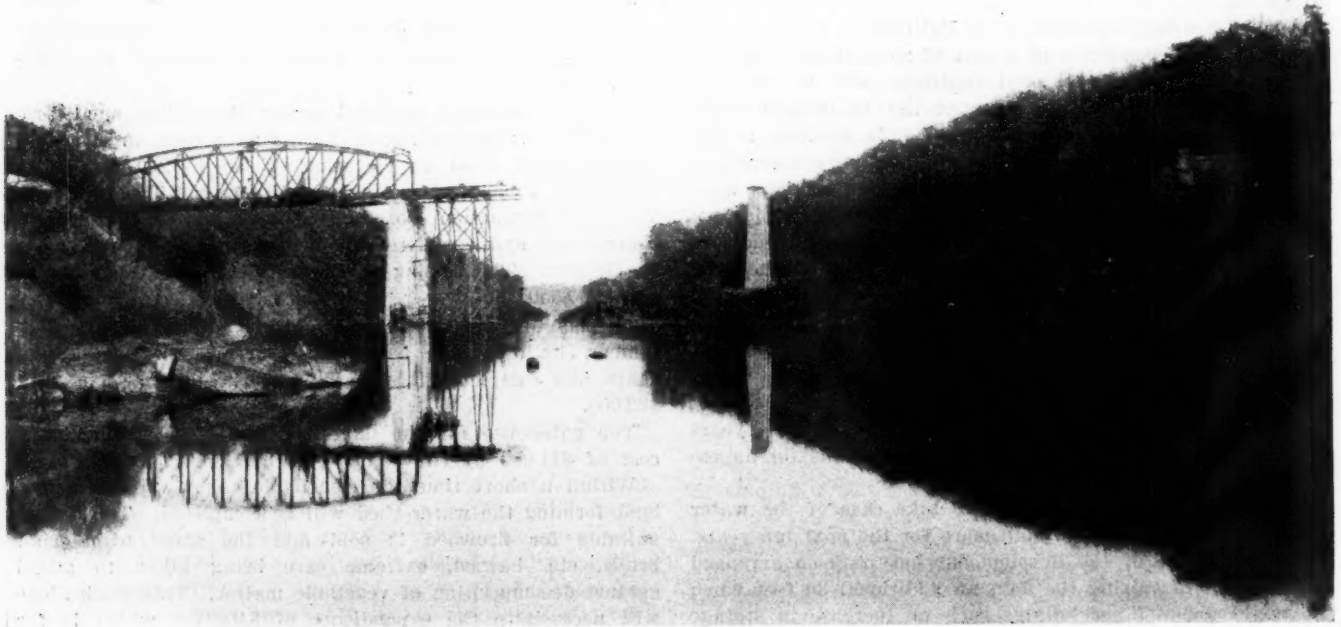


GENERAL VIEW OF LOCH RAVEN DAM.

crete slab floor. Construction began July 28, 1922 and by December when cold weather forced a suspension of activity the bridge was practically complete. It will be finished with the return of mild weather.

by Stoll & Pyles, of Brooklyn, Md., at a cost of \$30,000. This included a 90-foot span concrete bridge and 1500 feet of roadway.

One contract is yet to be let to insure completion of the



WARREN BRIDGE, LOOKING SOUTH.

The reconstruction by Claiborne, Johnston & Co. Inc., of roads near Loch Raven cost about \$40,000. The work called for the reconditioning of all the various roads in the section; completion of the task makes possible a circuit of

highway and bridge system of the section. It involves the construction of one half mile of concrete road near Phoenix bridge.

All the bridges and roads have been so located that they



PAPER MILL BRIDGE LOOKING SOUTH. SHOWING OLD BRIDGE AND ROAD.

the dam and water shed, starting at near Towson and returning to the same point over hard surfaced highways, a distance of 15 miles.

Construction of the Ashland Bridge and approaches was

will be well above the water level resulting from the elevation of the dam to 240 feet. Likewise when the structure is raised to its final height of 270 feet no change will be necessary in either the roads or bridges, with the exception

steel arch type, 361 feet span center to center of end bearings, with concrete abutments and concrete floor slab suspended from the arch by hangers. Construction was started at one end and work on the second abutment was begun before the steel was in place; the location was determined with such accuracy that when the last steel parts were placed



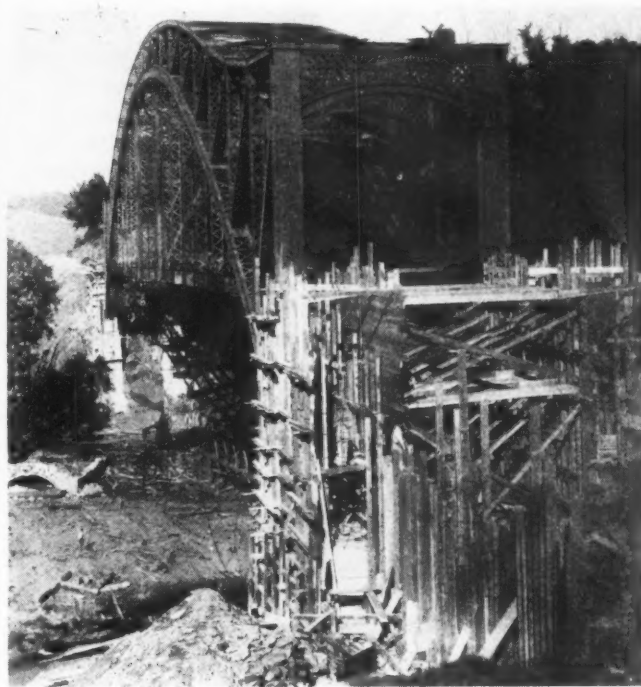
PROVIDENCE ROAD—MACADAM RECONSTRUCTION.

they fitted almost perfectly. The abutments are 65 feet high, placed on foundations carried to hard pan. The roadway is 20 feet wide. Electrical conduits were placed in the bridge to provide for future lighting. P. C. Lavoie Co., Inc., of Baltimore held the sub-contract for the bridge work. Construction was started last July and the steel was placed in about 6 weeks time. The bridge was opened for traffic on December 15.

The Warren Bridge consists of three spans, 210 feet each, truncated bow-string trusses, placed on two piers and two abutments, all reinforced concrete, with a concrete floor slab. The Whiting-Turner Construction Co. received the general contract for this structure, which cost \$157,000. One pier was constructed with the use of a cofferdam, the foundations for the piers and abutments being run to hard pan. The floor level of the structure is 80 feet above the present water level and will be 45 feet above the high water line when the elevation of 240 is maintained. A

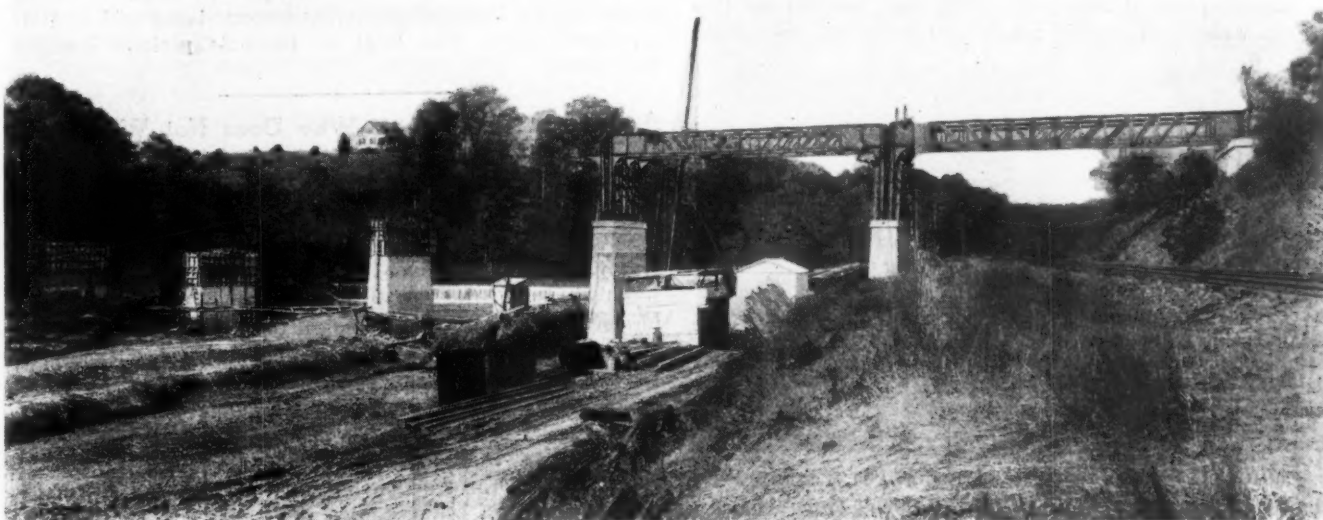
was handled over the cableway which was 900 feet long. The structure would have been completed in January but for cold weather putting a stop to concrete work which will proceed again in the early spring. The contract for this project was awarded in May 1922, work began in June and the last concrete work was poured in October, with the exception of the floor slab.

The road serving this bridge was built at a cost of \$110,000, contract having been awarded D. C. McAleer Construc-



PAPER MILL BRIDGE LOOKING EAST.
West Abutment in Foreground.

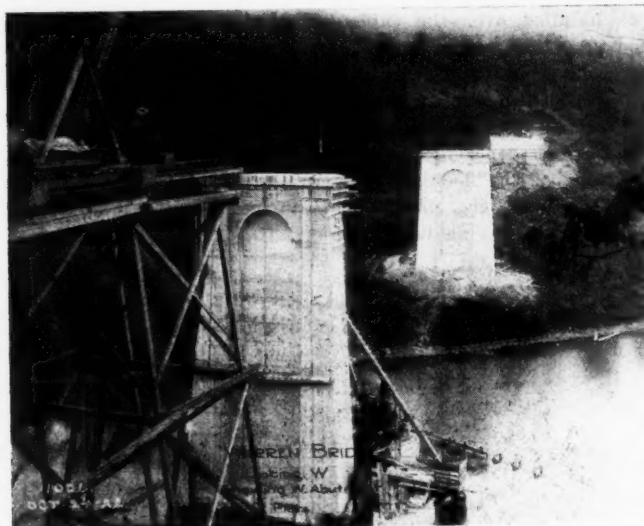
tion Co. The road is 2 miles long, 15 feet wide, and of concrete construction. About 35,000 cubic yards of excavation was necessary in building it. Work was stopped late last year, and it will require some three weeks to finish the road after operations are resumed this spring.



PHOENIX BRIDGE SHOWING EAST ABUTMENT AND PIERS.

bucket cableway was used in the construction of the abutments and piers. The concrete plant was placed on the east bank of the stream, and one yard buckets were used in handling the aggregate. One bucket every three minutes

The McLean Contracting Co. received the contract for the Phoenix Bridge, costing \$87,000. It consists of six 70-foot deck truss girder spans on steel columns supported on reinforced concrete piers, with concrete abutments and con-



WARREN BRIDGE LOOKING WEST.
of the two bridges that were built some years ago. These bridges will have to be raised if the dam is carried to 270 feet.



JARRETTSVILLE PIKE.
Section of new Concrete Road one half mile above No. 2 Bridge. Plans and specifications have been completed for a new filtration plant to be erected at a cost of \$2,000,000 opposite the present plant at Montebello. The first contract for this project, which will require nearly two years for completion,



PHOENIX BRIDGE PIERS UNDER CONSTRUCTION.
will be awarded in the near future. The combined capacity of the two plants will take care of the requirements of the city for years to come, and at the same time safeguard against a breakdown.

C. K. Allen is resident engineer on the entire project. William A. Gegraw is the water engineer of Baltimore, and John E. Greiner is consulting engineer for the bridges.

Over \$37,000,000 in Pipe Line Construction in Mid-Continent and Rocky Mountain Oil Districts.

Tulsa, Okla.—With pipe line construction, involving \$37,150,000, now under way, and projects proposed for an expenditure of \$20,500,000, the oil fields of the Mid-Continent and Rocky Mountain districts are experiencing the greatest expansions in that particular in the past ten years.

The Sinclair Pipe Line Company is spending the bulk of the money now going into pipe lines and other necessary equipment, as this concern has three lines under construction, which when completed will cost \$36,000,000. The Magnolia Petroleum Company, the Gulf Pipe Line Company, the Cosden Pipe Line Company, the White Eagle Oil & Refining Company and the Midland Refining Company, have lines under construction in Oklahoma and Kansas for a total of \$1,150,000.

The biggest venture proposed but not yet announced is that of the Prairie Pipe Line Company, which is to build a line from the Wyoming fields to its trunk lines connecting the Mid-Continent fields with refining plants on the Atlantic seaboard. This line, which is believed certain to be built, will cost \$20,000,000. The Empire Pipe line Company has announced a line from Wetumka, Oklahoma into Carter county of the State, 105 miles, to cost \$500,000.

The lines under construction are:

Sinclair Pipe Line Company—	
Mexia to Houston, Texas	\$4,500,000
Drumright, Okla. to Chicago, Ill.	11,500,000
Casper, Wyoming to Freeman, Mo.	20,000,000
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Magnolia Pipe Line Company, Cushing to Burbank, Okla.	\$36,000,000
Gulf Pipe Line Company, Pawnee to Tonkawa, Okla.	500,000
Cosden Pipe Line Company, Perry to Tonkawa, Okla.	200,000
White Eagle Oil & Ref. Co. Augusta to Wick, Kans.	100,000
Midland Refining Co. Eldorado to Sallyard, Kans.	250,000
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Total	\$37,150,000

This expenditure includes the cost of the pipe, labor, pumping stations, telegraph lines and other equipment necessary to completing the lines.

The Sinclair line from Wyoming to the Mid-Continent trunk line at Freeman, Missouri will be the first pipe line outlet of crude oil from the fields of the Rocky Mountain district to refineries of the Mid-Continent.

Officials of the Prairie Pipe Line Company have announced their company will enter the Wyoming fields as a buyer of crude oil. This means the construction of a line similar to that now under construction by the Sinclair company.

In addition to the projects enumerated above, there are scores of field lines and gathering systems being laid in Mid-Continent fields. The total of these is perhaps another \$1,000,000.

A Southern Contractor Who Does Not Want Any Foreigners in the South.

E. J. CUTTING, Statesville, N. C.

I have just finished reading your reply to the National Association of Manufacturers on their appeal for more immigration, in your last issue. I want to heartily endorse your stand on the matter. It is true we are all descendants of foreign countries, but the standard for which America stands today was not built by sons of immigrants from southern Europe. In fact, it was not built by the cast-offs of any nation. I agree with you that we should Americanize some of our undesirable population here now before bringing in any more law violators.

I am in the construction business and have worked some raw foreign labor, but I would rather have one honest American than three un-Americanized foreigners. I am proud to say we have mighty few here in the South and I hope never to see the day when we have half as many as some New England states. But we don't need foreigners to make the South grow, and she surely is growing, for which many thanks are due the MANUFACTURERS RECORD.

"A Constitution Anniversary Association" Suggested.

By HARRY F. ATWOOD, Chicago.

There is general agreement on the part of thoughtful people that the governmental tendencies today are undermining the foundations of this Republic, of which the corner stone is the Constitution of the United States.

There is a lack of clear understanding on the part of a large proportion of those who should be leading in the right direction as to the plan of government that was established here under the Constitution of the United States, as to the fundamental principles that made us a great people, and as to the meaning and value of American institutions as conceived here by the founders of this Republic.

The most effective way to counteract the dangerous and well-organized activities of radical and misguided forces that are advocating and promoting doctrines and fallacies which confuse governmental procedure and disturb the basic principles which make for orderly progress in industry is to fortify the great majority of well-meaning people with information that would clarify the issues and crystallize effort toward intelligent action.

The completion and signing of the Constitution of the United States on September 17, 1787, was the greatest event in our national history and one of the most important achievements of world history.

The discussions which culminated in the adoption of our Constitution and its early interpretation and administration were the most comprehensive and enlightening that have occurred in the annals of governmental procedure.

The people of this generation are not familiar with the discussions of those historic days and do not recognize their value, and consequently we have been drifting away from representative government, individual property rights, individual responsibility for individual conduct, toward direct action, paternalism, class agitation and class legislation, which means drifting away from orderly progress toward chaotic conditions.

The organization of the "Constitution Anniversary Association" is suggested as a movement to carry out the following plans and purposes:

To emphasize the importance of the great event of September 17, 1787, and to encourage the people annually during the week of September 17 to study the discussions of that historic time as an aid in clarifying their understanding of the problems of today.

To prepare and send out a bibliography of books and documents which should be read and studied.

To issue bulletins of information from time to time, and to encourage editorial discussion of the Constitution and the publication of special articles in all the newspapers and magazines during the week of September 17 annually.

To provide the services of speakers for the purpose of arousing interest in and clarifying the meaning of the Constitution.

To request public officials to issue proclamations annually calling attention to the week of September 17 as a time for thought and reflection regarding the great heritage bequeathed to us through the Constitution of the United States.

To ask all ministers to make fitting reference to the Constitution on the Sunday nearest September 17 each year from the religious standpoint of how this nation has been led by God.

To urge that the Constitution be read and discussed in all of the universities, colleges and schools annually during the week of September 17.

To encourage all men's and women's clubs, all industrial associations, all fraternal organizations, and all patriotic societies to give serious attention to a better understanding

of the Constitution at their various meetings during the week of September 17.

To urge upon those who have charge of the Boy Scout movement, the Camp-Fire Girls, and all other organizations of young people that they impress upon the rising generation the importance of guarding well the Ark of the Covenant which made this Republic known throughout the world as the Land of Opportunity.

To engage in such other activities as may be of service to our common country and the good of the world in making clear the fatal danger of the present drift from representative government toward direct action, from individual property rights toward paternalism and socialism, from individual responsibility for individual conduct toward class consciousness, class agitation, and class legislation.

PRACTICAL SUGGESTIONS.

Headquarters location, Chicago, Illinois.

(Because it is centrally located.)

To be managed by Board of five Directors.

Among the first books suggested for general reading would be:

- (1) The Federalist.
- (2) The Madison Papers.
- (3) The Origin and Growth of the American Constitution, by Hannis Taylor.
- (4) The Records of the Federal Convention, by Max Farrand.
- (5) The 100th Anniversary of the Constitution, by Hampton L. Carson.

Memberships to be solicited, with annual dues of \$5, all members to receive bulletins and other literature of the Association.

Also founding and sustaining membership to finance this organization adequately.

Houston Cotton Exchange to Erect \$900,000 Building.

Houston, Tex.—The Houston Cotton Exchange has awarded contract to Don Hall of this city for the erection of its proposed building, which will cost about \$1,350,000 and excavation for the foundation has already begun. It will be a fireproof structure, 140 by 120 feet, 16 stories and basement, of reinforced concrete, with a concrete foundation and a tar and gravel roof over reinforced concrete.

In the construction of the building, hollow fireproof and interior tile will be used, as well as metal doors, mail chutes, vault lights and ventilators, steel sash and trim and wire glass.

Contract has been awarded to the Houston Structural Steel Co. for the structural steel material and for its erection, and to the Salt Lake Marble & Tile Co. of Houston for supplying marble and tile and putting it in place. The Otis Elevator Co. has received contract for one freight and one automobile elevator and for four high speed passenger elevators. Sub-contracts for heating, lighting and plumbing have not been awarded.

Sanguinet, Staats, Hedrick & Gottlieb of Fort Worth are the architects.

Will Erect \$250,000 Office Building.

Atlanta, Ga.—Plans are being drawn by DeFord Smith of this city for an 8-story office building which will be erected here by Victor Allen and John Allen, at a cost of \$250,000. The structure will be of concrete finished in brick and limestone. Two elevators will be installed.

New Plant of McWane Cast Iron Pipe Company.

Birmingham, Ala.—The new pressure pipe plant of the McWane Cast Iron Pipe Company, which is under construction in East Birmingham, will be ready for operation March 1. Organized in January, 1922 with J. R. McWane, president, and James D. Sample, vice-president, secretary and treasurer, the company began operations in a small way in a converted plant in North Birmingham. A. T. McWane has since become secretary and treasurer, Mr. Sample continuing as vice-president. By summer two important products had been announced—the McWane precast joint, a factory-made cast iron pipe joint, and a 1¼-inch cast iron pipe, also equipped with the precast joint.

A site of thirty acres along the Louisville & Nashville tracks was purchased, and in September the company announced that it would erect at once the first units of a large pipe plant. Preparations necessitated the filling in of a large area of land diverting the channel of a creek and demolishing and remodeling a number of buildings on the site. Construction of the plant has progressed steadily and at present it consists of a main foundry of steel construction, 108 by 340 feet. It will ultimately be extended to a length of 540 feet, and will be duplicated in the future as the business of the company develops. In addition to the main building, there are machine and pattern shops, cupola house of steel and concrete, finishing and joint making shops, cafeteria and office building.

The new plant will begin operations with a force of 150 men and a daily capacity of 8000 feet of pipe, including water and gas pipe, equipped with the McWane precast joint, and small pipe of special manufacture for underdrainage systems of water filtration and sewage plants. It will be electrically operated.

\$400,000 in Additions to Two Huntington Buildings.

Huntington, W. Va.—Plans are being prepared by Meador & Handloser of this city for a 12-story annex to the building of the First National Bank which will cost about \$300,000. The addition will be 70 by 60 feet and will provide space for 148 additional office rooms, making a total of 278 rooms in the entire building. The first floor of the addition will contain a lobby and two store rooms, while the mezzanine floor of the present banking room will be extended over the additional area and the floor space devoted to the use of the bank.

The building will be fireproof, of steel, brick and terra-cotta, and will be provided with an elevator system consisting of four high speed cars. Construction bids will be invited as soon as specifications can be completed.

A 10-story annex to the Robson-Prichard building here will be erected by H. A. Robson and Fred C. Prichard, who have awarded the construction contract to Arnold & Co. of Chicago. The new addition will be erected in the rear of the present structure and will cost about \$100,000. It will be 40 by 40 feet, of reinforced concrete and will contain 50 offices.

Elsner & Anderson of Cincinnati, who prepared plans for the present building, provided for this addition in the original plans.

\$700,000 Hotel for Lakeland, Fla.

Lakeland, Fla.—A new hotel to be erected here at a cost of \$700,000 is being financed by the Adair Realty & Trust Company of Atlanta, and a site for the structure has been purchased. Hentz, Reid & Adler are the architects and the Senter & Adair Company, both of Atlanta, are the contractors.

It is understood that plans and specifications will soon be ready, and that ground will be broken in April. The building will be of the Spanish design, a special feature being a large roof garden.

Will Erect \$2,000,000 Bachelor Apartment.

Atlanta, Ga.—Details for the erection of a bachelors' apartment building in this city, to cost about \$2,000,000, are being worked out by the E. W. Bigham Investment Co. The structure will be on Harris street, between Ivy and Courtland streets. It will be 12 stories, of fireproof construction, the exterior of reinforced concrete and pressed brick with terra-cotta trim.

The building will be erected in the shape of an E and will contain 396 apartments with a total of 818 rooms. The first floor will be devoted to six shops, including a barber shop, and two stores, in addition to a ladies' parlor or reception room. In the basement, space will be provided for the heating plant, laundry, pressing club, boiler room and other facilities.

A feature of the building will be a large gymnasium, swimming pool and Turkish baths. There will also be commodious ball rooms and billiard rooms. Twenty-five of the apartments will be of two and three rooms, all bed rooms to be equipped with Murphy beds. Two stairways will be installed as well as a passenger and a freight elevator. The building proper will cost about \$1,500,000, while the furniture and other equipment will reach a total of nearly \$500,000. It is stated that financing will be arranged through a bond issue of \$1,000,000.

Daniel & Beutell of Atlanta are the architects and the Logan Realty Company will handle the renting and other details.

Edwards Hotel at Jackson to Cost \$1,000,000.

Jackson, Miss.—Contract has been awarded by the I. C. Enochs Estate, of which I. C. Enochs and Edward Flowers are executors, for the erection of the proposed \$1,000,000 structure on the site of the Edwards Hotel. The Foundation Company of New York secured the general contract and has awarded contract to the Virginia Bridge & Iron Company of Roanoke, Va., for the structural steel, which will amount to about 600 tons.

The building will be 135 by 146 feet, 12 stories and basement, of fireproof steel and reinforced concrete construction faced with brick and stone, and will contain 424 rooms. Nolan & Terre of New Orleans are the architects and J. W. Billingsley is the consulting engineer.

Wants Information on Building of Cotton Mill.

Mr. H. S. Wilson, Haskell, Texas, writes the MANUFACTURERS RECORD:

"At a meeting of our Chamber of Commerce, we have concluded to build a cotton mill at Haskell, and we are desirous to know where we can find such information as is necessary to just plain men that don't know the technology of cotton mills. If you can give me any reference as to where we can get printed matter that discusses kindred subjects, we will appreciate it. We know that the RECORD is the ultimate authority on southern manufacturing. We have made up our minds to build this mill if it takes us 10 years to do it and we have to build it in sections or units.

Purchase Interest in Boone County Coal.

In connection with recent press reports that the Mellon interests of Pittsburgh have purchased 27,000 acres of coal lands in Boone County, West Virginia, H. M. Johnson of Pittsburgh, advises the MANUFACTURERS RECORD that an interest has been acquired in some Boone County coal, which, eventually, may be used for by-product coking purposes, but that there is no prospect for early development.

The property, it is said, was acquired from the estate of Joseph Wharton of Philadelphia, and is located on Pond Fork of Coal River, twenty miles from Madison, the consideration being \$2,700,000.

Building Features Activity in Shelby and Vicinity.

Shelby, N. C., February 23—[Special.]—Construction work of every character is under way in this section in volume. Industries are at capacity and giving employment to hundreds of people, in addition to the considerable number engaged in the building trades.

A \$285,000 paving program has recently been completed and \$75,000 more will be expended immediately for such work. Sidewalks totaling 30,000 square yards are to be laid at a cost of about \$45,000. Sewer improvements finished recently cost \$23,000, and water line extensions \$8,000. Two new schools costing \$100,000 form a part of the municipal expansion program. Mees & Mees, of Charlotte, represented by F. S. Parrigan, are the consulting engineers for the city. The paving work was undertaken by the Asheville Paving Co., N. S. Rorison, manager.

The farmers of the section are in good condition financially, having produced last season the heaviest cotton crop on record, the total for the county being 36,000 bales contrasted with the previous high record of 32,000 bales. They are confident that the boll weevil will be beaten, and are not waiting for the county to be infested, but as Mr. Lineberger, president of the Cleveland Bank & Trust Company, states:

"The farmers have taken off their coats and are going to meet the boll weevil. They are making every preparation possible to overcome any trouble from this source. About 80 per cent of our people own their farms, do a great part of the work, and don't depend to any large extent on hired help. Take one farmer I know, he is going to increase the mule power, use more and better fertilizer than ever before, and work the crop intensively and thus overcome the necessity of using poison—at least this season. Last fall he plowed every foot of his land and is ready to go to work as soon as the weather opens. Many other farmers have done likewise during the past weeks."

Diversification of farm crops is being undertaken with much success. Only a few years ago the Shelby Creamery Company was organized with a monthly output of 1500 pounds of butter; today it is 30,000 pounds monthly and still increasing. The boll weevil scare increased the production 1000 pounds in one week recently, according to officials, and more butter will be produced in 1923 than ever before. An entirely new plant with the latest improved equipment is to be erected within 90 days, and the necessary plans have been completed for buildings. There are two creameries in the county with a yearly output of about 500,000 pounds.

Canning is being fostered on a big scale, and last season at the various fairs Cleveland County exhibitors won many first prizes.

Building association activities are an index of the large amount of new construction. The Shelby Building & Loan Association, J. Frank Roberts, secretary, last year built 75 houses, and the outlook for 1923 is bright. The Shelby & Cleveland County Building & Loan Association, John T. Mills, secretary, built about 40 houses in 1922, and reports money more plentiful than for some time. The Cleveland Building & Loan Association, W. D. Lackey, secretary, organized only six months ago has been a decided success.

A warehouse with a capacity of 3000 bales of cotton has been completed by the Planters & Merchants Warehouse Co., R. T. Legrande and J. C. Smith interested. It is two stories high, of frame construction.

Chas. C. Blanton, president of the First National Bank, states that deposits are \$500,000 in excess of this time last year, and indications all point to better business.

The Union Trust Company reports increase in deposits during the fall months, with obligations being met better than normally.

Extensions to the Eagle Roller Mills plant will necessitate an expenditure of about \$75,000. Cleveland Lodge No. 202, A. F. & A. M. contemplates erecting a building in the near

future. Work will start soon on a \$10,000 parsonage for the Methodist Church, which plans also a church building to cost about \$100,000. Many business houses are to go up in addition to those now under construction or nearing completion.

"Deposits doubled during 1922 over 1921," states Wm. Lineberger, president of the Cleveland Bank & Trust Co., "and they still show a steady increase. Merchants say business is fine. All the people are meeting their obligations. In fact, the section is in very good shape."

The Dover Mill Company, organized with a capital of \$500,000 will have an 11,000 spindle mill in operation by June. The main building is 107 by 228 feet, three stories high of reinforced concrete. A two story brick warehouse is nearly completed. About 75 houses for operatives are being built and 250 persons will be engaged at the mill. The officers are: J. R. Dover, Sr., president and treasurer; Fred. R. Morgan, secretary and treasurer; C. C. Blanton, vice-president.

At the Ella Division of the Consolidated Textile Corp. of New York, 11,300 spindles are running, the output being print cloth. According to J. R. Dover, Jr., general manager, 250 operatives are engaged day and night.

The Eastside Manufacturing Company, of which C. C. Blanton is president, and Fred. R. Morgan, secretary, is operating 11,000 spindles and employing 250 people in the production of print cloth.

J. C. Smith of the Shelby Cotton Mills reports 200 operatives engaged with 20,800 spindles and 400 looms running on pajama checks, sateens and yarns. Additional tenement houses are being built.

The Lily Mill & Power Co., John F. Schenck, Sr., of Lawn-dale, president, and J. F. Schenck, Jr., treasurer, is operating about 6600 spindles day and night. An addition 80 by 80 and two stories high is now building, and new houses will be erected.

The Janet Hosiery Mills, D. W. Royster manager, are operating with 125 employees producing mercerized and combed half hose at the rate of 500 dozen pairs daily. A ready sale at fair prices is reported for the output. Additional machinery will be installed this year, which will probably necessitate improvements to buildings, and give employment to 25 more operatives.

The Dilling Cotton Mills at Kings Mountain with 21,000 spindles, the largest in Cleveland county, is operating at capacity following extensive improvements during 1922. At High Shoals Mills 76 looms have been added.

The Shelby Oil Mill, a branch of the Southern Cotton Oil Company, 24 Broad Street, New York, is producing cotton seed products and fertilizers with 50 to 75 persons engaged, according to E. Frank Jenkins, local manager.

Republic Iron and Steel Company's Favorable Report.

The income account of the Republic Iron and Steel Company, Youngstown, Ohio, for 1922 included in their annual report, shows net earnings from operations, (after deducting charges for maintenance and repairs of plants), \$2,189,408.47, charges having totaled \$2,732,623.42. Adding to the net earnings interest and income from investments \$331,453.47 made the total profits for the year \$2,520,861.94, from which was deducted provision for depreciation and renewal of plants, for exhaustion of minerals, and for interest on bonds and notes, leaving net profits of \$418,311.85 applicable to dividends. The balance sheet shows assets of \$127,707,665.19, the net current assets being \$16,156,770.92.

As to unfilled orders and business outlook Chairman John A. Topping says: "The readjustment effected in prices for

iron and steel during the year 1922 were unquestionably out of line with other commodities and as a result price recovery occurred during September, with substantial advances since that date. These advances however, have not been excessive and are not out of keeping with the cost of production. To state the situation broadly, labor (exclusive of coal mining, which is now at the war peak), is approximately 30 per cent below normal prices, while the principal heavy steel products are selling at 33 1/3 per cent below war levels, so that when it is considered that coal and transportation large items in steel cost, are close to war levels, iron and steel prices as related to cost of production are low. For this reason sales have been restricted to nearby deliveries. * * * On the whole the general outlook for the year 1923 is decidedly more encouraging as both demand and prices are tending upward, and under these conditions further improvement in profits is promised."

Blunders of Former Federal Reserve Management Strongly Condemned by Southern Business and Financial Leader.

Atlanta, Ga., January 20.

Editor Manufacturers Record:

I have read the article in the MANUFACTURERS RECORD of January 4, with reference to the discussion of Professor Gustav Cassel of Sweden and the remarks of Professor Irving Fisher of Yale on world business conditions.

These discussions are clear arraignments of the management of the Federal Reserve Board in forcing its deflation policy. The ruinous effect of the exercise of faulty judgment, resulting in the destruction of thousands of industries, the disquieting of labor and the suicides of hundreds of people, including bankers who were wrecked, has been so appalling it seems hardly necessary to attempt further to show the errors committed by the management of the Federal Reserve Board. Thousands and hundreds of thousands of sufferers and the arresting of industrial enterprises and business generally, causing untold loss, cannot be overcome within many years. The sufferers will never regain their original position; many of them are dead and gone, their investments having been destroyed.

This situation was anticipated by me when Governor Harding and Vanderlip made their announcement in April, 1920. I stated at the time, in confidential conversation to a few friends, that if the policy announced were enforced by the Board it would result in the greatest panic this country had ever experienced. The result has been worse than I then anticipated.

I have read with much interest all you have published in the MANUFACTURERS RECORD on the subject. The masterful fight you have made in behalf of the restitution of business and calling for a reversal of the ruinous methods of the Federal Reserve Board deserves much praise and should receive the thanks of the entire country. I have wondered how your versatile mind and firm individuality could stand up, when so many newspapers and other journals seemed indifferent to the moving consideration of bad business prevailing, not only in the United States but in foreign countries. It must be in a large measure in response to your position and advice that the present administration in Washington is now endeavoring to repair as far as possible the injury which has been inflicted upon innocent farmers, manufacturers and those interested in other lines of business.

It is impossible to realize fully what an instrument in the Federal Reserve Law had been placed by the Government in the hands of a few people—intended to stabilize business and which had been used, unfortunately, to ruin business.

Judging from experience, the law governing the operations of the Federal Reserve Banking System should be amended, so as to require a conference of able business men from all

sections of the country before it would be possible for the Federal Reserve Board ever to inaugurate again such a foolish policy, and thereby to prevent the inflation and deflation of the currency as a drag-net.

The fight you have made in the interest of humanity and business will remain as a monument to you.

I can realize how having struggled for many years to build up the industries throughout the United States, especially in the Southern portion, you have been greatly distressed at the ruin forced upon these industries by the conduct of the Federal Reserve Board.

JOEL HURT.

Dairy Products Values in 1922 as Compared with 1920 and 1921.

Dairy products in 1922, at farm prices, had a gross value of \$2,090,455,000, according to estimates by the United States Department of Agriculture. The value of dairy products in 1921 was placed at \$2,352,000,000, and in 1920, the top year in values, at \$3,018,000,000.

Whole-milk sales from farms and consumption on farms comprised 65 per cent of the total value of all dairy products in 1922, and are given a value of \$1,357,000,000. In 1921 the value of such whole milk was placed at \$1,567,000,000, and in 1920 at \$1,911,000,000.

Farm-made butter had a value of \$220,000,000 in 1922, compared with \$242,000,000 in 1921 and with \$366,000,000 in 1920.

The 1922 value of cheese made, cream sold, butter fat sold, buttermilk, whey, and skim milk, is placed at \$513,018,000, compared with \$542,817,000 in 1921 and with \$740,736,000 in 1920.

The farm price of whole-milk was 19.09 cents per gallon in 1922, compared with 22.19 cents in 1921, and with 30.10 in 1920. The farm price of butter was 35.23 cents in 1922, compared with 37.16 cents in 1921, and with 54.25 cents in 1920.

Increasing Activity in English Cotton Goods.

Manchester, England, February 7.—[Special.]—Some interesting statistics have been published by the English Federation of Master Cotton Spinners Associations with regard to the production, sales and deliveries of yarns for the week ending January 20. The returns were obtained from 217 firms representing 15,528,763 spindles. These showed that sales were over 4,000,000 pounds in excess of the actual production whilst deliveries were about 130,000 pounds of the production. The sales for that one week were actually in excess of a full week's production to the extent of 2,250,000 pounds. The above figures fully reflect the very large cloth business which was done in the Manchester market during the first three weeks of the year. It should be stated however that the week under review was an exceptionally good one and if the demand had continued on the same scale for another four weeks then practically every spinner in Lancashire would have been working on a profit. At least the position of spinners generally would have greatly improved. Since that date however there has been a falling off in the demand, but quotations at the moment for both American and Egyptian counts are firm.

Facts About a Florida Town.

The Chamber of Commerce of Effers, Fla., has issued a booklet of information about Pasco County with particular emphasis upon the agricultural resources of the district and the advantages which the county possesses for citrus fruit raising. The illustrations show a four year old grape fruit tree, one of the six year citrus groves, and a partial view of a 100 acre grove.

THE IRON AND STEEL SITUATION

Continued Strength in Steel Market—Mills now at About 85 Per Cent of Capacity.

Pittsburgh, February 24.—[Special.]—The steel market continues to gain in strength, both as to prices and as to the freedom with which mills refuse to quote on inquiries. There is no increase in actual consuming requirements, as by far the major portion of the actual requirements during the present half year was covered in the active buying movement that began about December 1.

While there is a good bit of talk, it is not clear just how the mills stand as to the amount of nearby delivery business now on books. One hears of mills refusing to quote on inquiries because they do not wish to commit themselves far ahead and one also hears of mills shipping now at low prices, steel which disappeared from the market many months ago, indicating that they have a great deal of business to fill later.

While a considerable part of the current inquiry from jobbers and manufacturing consumers is regarded by mills as speculative in character, against possible rather than certain requirements, or against possible advances in market prices, the volume of business coming out against actual construction work is as large as at any time recently, if not larger. Inquiry of this sort is always taken care of by mills. Fabricated steel business let in January was about 75 per cent of the fabricating shop capacity, the best month's record since May, 1922, while business thus far this month has been running at a slightly better rate, the last summary showing 43,000 tons let in a week. Locomotive buying is heavy, and is running better than the average of last year, while freight car buying keeps up its remarkable rate, despite higher prices.

Week by week the building program for the season enlarges and the prospect of serious labor shortage increases. Contractors will bid for labor, as they were doing last autumn, and the steel mills cannot meet this competition. Steel mill operations are now at fully 85 per cent of capacity, against an average of about 65 per cent in 1922, and will probably increase farther in the next few weeks, then falling off in the spring.

The minimum market price of bars, shapes and plates has advanced in the past week from 2.20c. to 2.25c., and orders have to be of attractive character to appeal to mills even at 2.25c. At the beginning of the year the market was 2.00c. and at the low point a year ago it was 1.35c.

At last the independent sheet market for the second quarter has been established, mills having previously held off from selling for delivery beyond April 1. Advances are \$5 to \$8 a ton in blue annealed, according to gauge, \$5 on black sheets, \$8 on galvanized sheets and \$5 on automobile sheets. These advances are all on a basis of Steel Corporation prices, except in automobile sheets, in which the independents were previously \$6 a ton above the corporation. Some of the independent mills, if not all, are limiting their sales to April, rather than to the second quarter. The Steel Corporation had previously sold itself out to July 1, and thus the prices of independent mills make the only market there is, as follows: Blue annealed, 12 gauge and heavier, 2.75c.; 13 gauge and lighter, 2.90c., base; black sheets, 3.60c.; galvanized sheets, 4.75c.; automobile sheets, 5.25c.

Tubular goods and wire products show a very strong market, with no price changes. Producers are well sold up and it is difficult to place orders.

The Weirton Steel Company, the largest independent producer of tin plate, has advanced its price from \$4.75 to \$5.00, on account of advances in raw materials. The Steel Corporation is sold up through the half year at the old price.

Taking 1913 average prices as 100, finished steel products now stand at 163. On the same principle, the Bureau of Labor index number of commodities generally has stood at 156 for three months past.

Connellsville coke, reported a week ago as having stiffened with contracts closed to July 1 at \$6.75 to \$7.00, is a trifle stronger still, with prospects that the minimum on second quarter contracts will be \$7.00. This stiffens pig iron, which is quotable \$1 up this week on basic and foundry, the market now being \$28 for Bessemer, \$27 for basic and \$28 for foundry, f. o. b. valley furnaces, freight to Pittsburgh being \$1.77. After the long wait in the pig iron market, during which buyers expected prices to weaken, the sellers easily have the upper hand and the common prediction is that the market will reach \$30 before long.

Pig Iron Continues Active—Enormous Demand for Steel Wire and Steel Wire Products.

Birmingham, Ala., February 26.—[Special.]—No deflection is noted in the Southern pig iron market though the selling is not as active as it was a few weeks ago and the lots being taken not as large as a short time ago. Quotations remain firm, \$25 per ton, No. 2 foundry, being average, and caution still being exercised in the booking of business because of the aggregate growing steadily. Two of the smaller companies are out of the market except to regular customers. Numerous sales are noted, from 150 to 350 tons each and occasionally an order for 1000 to 1500 tons, delivery requested during second quarter of year. Inquiries are still coming in as to iron for third quarter but it is not to be stated that the buying for that period has opened up yet.

Continued dwindling of the surplus or accumulated stocks of iron is a fact and within 30 more days there will be no available iron on yards in this State. Production is being improved, a blast furnace having been started the past week, Shelby Iron Company's furnace on charcoal iron, for which product there is a good demand with firm quotations. The production, even with only 28 days in this month, will go above 215,000 tons for February in Alabama, it is estimated, against 232,773 tons in January, 31 days. The schedule for the coming month has not been changed so far, two blast furnaces to resume operations to a certainty and possibility of three iron makers. Four furnaces, in reality, are either ready now for the torch or under repairs, raw material supplies and transportation of raw materials being the reasons given as to delay in starting up. Inquiries for pig iron are still very determined.

Alabama pig iron is being shipped in all directions these days. Some little buying was noted the past week from the far west, while the middle section is urging deliveries on iron bought several weeks ago. Local melt shows increase. The starting up of the new cast iron pipe plant of the McWane Cast Iron Pipe Company, manufacturing pipe from 1¼ to six inches, the plant to have an output of 8000 feet of pipe daily, will add to the melt considerably. Consideration is being given to the erection of a second unit to this industry. The plant now under lease by the McWane company will after the coming week return to soil pipe making in quantity. Other plants in Anniston, Gadsden, Birmingham and Bessemer have enlarged capacities and there is more iron needed. The United States Cast Iron Pipe and Foundry Company will lose no time in the installation of the additional deLavaud machines for pressure pipe making at its North Birmingham plant. The Birmingham Machine & Foundry Company is pushing the construction work on its large pipe plant, 12 to 15 pipe floors to be put in, and within another 60 days the new industry will be at work. Plants at Gadsden and Annis-

ton are being enlarged and some smaller foundries in the immediate Birmingham district are being converted into pipe making plants. All the pressure pipe plants in this state have been getting in new lettings for their product and positive assurance is noted of a necessity for activity for several months to come.

Sales of steel wire and wire products, nails in particular, by Birmingham district plants have been nothing short of wonderful of late and all machines on that kind of products are being worked to capacity. The statement is made that inability to get normal production in northern, western and other sections has brought a run on Southern steel and steel wire products, with the result that every ton that can be gotten out is being rushed. California, for instance, is taking much wire and nails from this section, boxes for fruit shipping requiring no little nails and wire. The Gulf States Steel Company is operating five out of six open hearth furnaces while the big plant of the American Steel & Wire Company at Fairfield, is working to capacity. Hardware dealers throughout the country appear to be clamoring for stock and the mills on wire and wire products, including rod have much to do to keep up with the business.

Steel rail shipments for export are still brisk, three large boats, two Japanese and one British taking on cargo at Mobile during the last 10 days bound for Japan ports, in which considerable steel rail was included. Regular boats sail between the port of Mobile and California ports and each one carries some of the products of the Birmingham district, either steel or iron products.

The coal mining industry in the Birmingham district is hampered only by the railroad car supply. The domestic coal demand has been very strong lately, extremely cold weather and car shortage being responsible. The coke market is still strong and while deflection is noted in some prices, especially where there are contracts made, the producers are more than satisfied with conditions and express opinion there is to be continuation for some time. Alabama coke is being shipped to Chile, a little is going into Mexico and the southwest in this country is getting a regular supply from this district. For the past three or four months, the middle west has been taking coke from this district.

The scrap iron and steel market is also strong, considering. Dealers are bringing in as much old material as they are selling and the policy heretofore announced, to the effect that dealers intend selling as the opportunity comes, instead of waiting for better prices or for an improving market is being strictly maintained. This means there is a steady moving out and in of old material.

PIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$25.00
No. 1 foundry, 2.25 to 2.75 per cent silicon, \$25.50; iron of 2.75 to 3.25 per cent silicon, \$26.00; iron of 3.25 to 3.75 per cent silicon, \$26.50; iron of 3.75 to 4.25 per cent silicon, \$27.00 charcoal iron, f. o. b. furnaces, \$32.50 to \$34.00.

OLD MATERIAL.

Old steel axles.....	\$24.00 to \$25.00
Old iron axles.....	24.00 to 25.00
Old steel axles.....	22.00 to 23.00
Heavy-melting steel.....	15.00 to 17.00
No. 1 R R wrought.....	20.00 to 21.00
No. 1 cast.....	22.00 to 23.00
Stove plate.....	19.00 to 20.00
Old car wheels.....	22.00 to 23.00
Old tramcar wheels.....	23.00 to 24.00
Machine shop turnings.....	12.00 to 12.50
Cast iron borings.....	12.00 to 12.50
Cast iron borings (Chem.).....	15.50 to 16.00

Tulsa Church Plans \$300,000 Addition.

Tulsa, Okla.—The enlargement of the First Presbyterian Church in this city at a cost of \$300,000, is being planned and a building committee, of which Frank Barnes is chairman, has been appointed. The improvements contemplate a large auditorium with a main floor and balcony, together with another floor for Sunday School rooms. It is also planned to erect a tower connecting the new building with the old. Rev. C. W. Kerr is the pastor.

RAILROADS

ST. LOUIS' GREAT TERMINAL PLAN.

\$100,000,000 to \$150,000,000 Would be Spent During Several Years Period to Unify System.

Henry Miller, president of the Terminal Railroad Association of St. Louis, says it is ready to proceed with its share of the plan to unify railroad terminals in that city as soon as the municipal government consents to the fulfillment of the work as outlined in the report of the Terminal Committee of the St. Louis Chamber of Commerce. The first step in the program is that the railroads shall surrender the use of the Eads bridge over the Mississippi River and the tunnel to electric railways and that the railroads use instead the Municipal Bridge, building approaches and other related facilities thereto, at an estimated expenditure of \$15,000,000 to make it available. Following this there would be a complete rearrangement of railroad terminal facilities in St. Louis during a period of years, which when finished would cost from \$100,000,000 to \$150,000,000 to complete. Thus there would be laid down a definite plan for railroad expansion in the future. In October last the Terminal Railroad Association voted to increase its capital stock from the old figure of \$50,000,000 to a total of \$100,000,000 in order to carry out its necessary financing in the impending plan.

Other features of the general plan propose removal of train sheds at Union Station, substituting for them modern umbrella sheds, and also building another union station at East St. Louis. Additional yards are to be built on both sides of the river for classifying and distributing freight cars; team yards similarly located will also be built for loading and unloading carload freight, and there will be freight houses on both sides of the river for loading and unloading package freight. Belt lines for connection purposes and for industrial development will likewise be constructed. Locomotives and other railroad equipment will be bought to meet requirements for increased power and facilities.

Extensions to the elevated railroad of the Merchants Bridge Terminal are also contemplated, to be constructed when funds are available, so as to take some of the train movements from congested surface trackage.

It is estimated that about \$10,000,000 a year would be saved in handling freight cars by these improvements.

Freight Loadings Still Heavy.

Loadings of revenue freight on the railroads during the week ended February 10 totaled 853,289 cars a decrease of 12,386 cars as compared with the preceding week, the drop being principally due to severe weather. The week's total was, however, over 75,000 cars more than were loaded in the corresponding week of last year and over 165,000 cars more than in the same week of 1921. Loadings of coal increased by more than 1000 cars as compared with the week before, the total being 190,860 cars. Loadings of coke also increased 980 cars in a total of 15,188 cars.

Package Freight Cars Through to Cuba.

Through car service for handling package freight without transfer to Havana, Cuba, was established by the Southern Railway March 1, in connection with the Florida East Coast Railway and its ocean-going car-ferries, operating daily between Key West and Havana. Freight will be assembled and cars loaded at the Atlanta terminal, (Inman Transfer), to which package cars are run from all the principal shipping and transfer points east of the Mississippi. The cars will be handled on fast manifest trains to Jackson-

ville and thence to Key West, where they will be switched aboard the car-ferries and, in turn, switched to railway tracks on arrival at Havan. This service will simplify the shipping of less-than-carload freight to Cuba, packing regulations being the same as for domestic shipments.

\$20,000,000 FOR CARS AND ENGINES.

Louisville & Nashville Railroad Orders for Growth of Traffic—Other Equipment News.

Louisville & Nashville Railroad Co. has, it is announced, placed orders for a total of \$20,000,000 worth of cars and locomotives all to be delivered during the next few months. This includes 6000 coal cars, 2000 box cars, 51 all steel passenger cars and 36 locomotives.

Orders placed by the railroads for freight cars up to February 1 called for 91,354 cars yet to be delivered according to the American Railway Association, this including 23,022 cars for which orders were placed during January. In this total are orders for 37,476 coal cars. Locomotives under order totaled 1507, 62 having been ordered during January. Of this latter total 1022 are freight locomotives and 362 passenger locomotives, the rest being switchers.

Recent inquiries in the car and engine building field include the following: 2000 box cars, 1000 gondola cars, 1000 hopper cars, 200 stock cars, 5 dining cars and 66 locomotives all for the Southern Railway, 20 consolidation type locomotives for the Western Maryland Railway, 30 Mikado type locomotives for the Seaboard Air Line, 300 tank cars for the Texas Company, and 100 tank cars for the Santa Fe System.

Freight Rates to Be Revised.

A recent decision of the Interstate Commerce Commission that freight rates on cotton, compressed in transit or prior to shipment, between Oklahoma and Arkansas producing territory and Galveston, Houston and Texas City are discriminatory against those ports and unduly prefer New Orleans and Mobile has resulted in an order that these rate schedules be generally revised, making new rates to take effect May 31.

Baltimore & Ohio Bond Issue.

Application to the Interstate Commerce Commission for authority to issue \$3,770,000 of 6 per cent refunding and general mortgage bonds has been made by the Baltimore & Ohio Railroad Co. to reimburse its treasury for expenditures for extensions, improvements and maturing indebtedness. Underlying bonds in connection with the proposed issue will, it is stated, be issued by subsidiary companies.

Big Irrigation Projects in Mexico.

Monterey, Mexico—Several commissions of engineers have been appointed by the Department of Public Works to make surveys and estimates of water storage dams and irrigation systems to be constructed. The largest of these projects is in San Luis Potosi. The dam will be situated at El Mesquite and its construction is already under way. It is reported to cost approximately \$1,500,000 and will form a storage reservoir sufficient to irrigate 2,500,000 acres, said to be the largest irrigation project in the world.

Another commission is at work on a system of canals whereby the Sonora River will be used in irrigating nearly 1,500,000 acres of agricultural land.

Engineers in the northern section of Sonora are surveying the land and plan extensive irrigation in Guaymas valley.

The fourth commission is now directing the building of an immense dam in the upper section of the Yaqui River. It will afford a water supply for irrigating about 400,000 acres of valley land.

TEXTILE

\$1,000,000 COTTON MILL FOR DALLAS.

Other Textile Plants for Texas Expected to Follow— New Mill to Have 12,500 Spindles—To be Erected at Once.

Dallas will have a cotton mill costing \$1,000,000 with a spindle capacity of 12,500, according to the Dallas Chamber of Commerce, who advise that construction will begin at once. Their wire to the MANUFACTURERS RECORD follows:

"One million cotton mill, 12,500 spindles, will be erected here at once; capital all subscribed; J. Perry Burrus of Dallas elected president; M. L. Cannon and L. W. Robert have substantial stock; fifty Dallas men subscribed remainder; mill to be jointly managed by Cannon interests and Dallas stockholders understood."

Mr. M. L. Cannon is the cotton mill owner of Concord, N. C., and Mr. L. W. Robert is of Robert & Co., textile engineers of Atlanta. Both Mr. Cannon and Mr. Robert have visited a number of Texas cities with a view to establishing plants and Dallas is the first city from which a definite announcement has been made.

It is understood that Houston, Temple and other cities are under consideration by Texas interests and outside capitalists for the establishment of textile plants.

Construction Details on Republic Cotton Mill No. 3.

Additional information has been received relative to the erection of Mill No. 3 at Great Falls, S. C., for the Republic Cotton Mills, to which reference was made in the MANUFACTURERS RECORD recently. Potter & Shackelford, Inc. of Greenville, S. C., were awarded contract for the erection of a weave shed, 627.3 by 237.3 feet, one story, with basement under a portion of the building, measuring 392 by 81 feet, the building to have reinforced concrete side walls, steel sash and a reinforced concrete roof with saw-tooth skylights.

The contract covers also the erection of a 3-compartment warehouse, 150 by 100 feet, one story, of standard mill construction; a boiler house 42 by 46 feet, one story, and a pump house, 24 by 18 feet, of brick and timber construction. The approximate cost of these buildings is \$450,000. J. E. Sirrine & Co. of Greenville, S. C., are the engineers.

Construction of the buildings will be started soon and it is expected that a year will be required for completing the mill. It will provide space for 1000 looms.

Extensions Planned for Two Mills at Rome.

Rome, Ga.—The estimated cost of improvements and extensions which will be made to the Berryton Cotton Mills and the Rome Hosiery Mills here, will total \$150,000, according to an announcement of John M. Berry, president of the two companies. Improvements at the Berryton Mills will consist of the addition of 3000 spindles on floor space already constructed, while the extensions at the Rome Hosiery Mills will consist of a 2-story annex, 60 by 100 feet, to the mill, and the erection of a brick office building, 40 by 40 feet, to be equipped with vaults and modern fixtures.

In the past eight months, it is stated, the two mills have produced the highest output of cotton yarn and hosiery in their history.

Merrimac Manufacturing Co. to Build 80 Cottages.

Huntsville, Ala.—Contract has been awarded to William P. Dilworth of this city for the erection of 80 dwellings in Merrimac village by the Merrimac Manufacturing Company for the use of additional cotton mill operatives which it plans to bring here.

Conditions Improved in Lancashire Cotton Industry —Short Time in Spinning Abandoned.

Manchester, Eng., January 31, 1923—[Special.]—Organized short time working in the American spinning section of the Lancashire cotton industry is to be discontinued at the end of this month. The above announcement was made at a special meeting of the American spinning members of the Federation of Master Cotton Spinners Associations held in Manchester when the result of the ballot asking members whether they were in favor of continuing short time working to the extent of 35 hours a week instead of the usual 48 was made known. The voting showed 73½ per cent were in favor of short time working, 9½ per cent were against, while 17 per cent made no reply. Eighty per cent of votes had to be obtained before the ballot could be carried.

The committee while regretting the result, recorded that in their opinion the continuance of short time is desirable and members are advised to curtail production on the lines that have been in operation for some months past.

Over 100,000 operatives are affected. The organized short time working has been in operation since last September. On the Manchester Royal Exchange the result was generally anticipated, as during the past month there has been a welcome improvement in the cotton industry.

Wilkes Hosiery Mills Will Enlarge.

North Wilkesboro, N. C.—A new plant will be erected here by the Wilkes Hosiery Mills, P. Ward Eshelman, president and general manager, and construction will begin at once. The main building will be 60 by 100 feet, the major portion of which will be 2 stories. There will also be a one-story building, 30 by 60 feet, to be used as a dye house and boarding room, and a boiler house, 12 by 16 feet. All structures will be of brick.

The company now employs from 65 to 70 hands, but will increase the number by 15 to 20 upon completion of the new plant.

Vance Knitting Company Enlarging Plant.

Kernersville, N. C.—The Vance Knitting Company is enlarging its plant here by the erection of a 2-story building about 50 by 100 feet. Engineering details are in the hands of J. E. Sirrine & Company of Greenville, S. C., and in addition to this building a new boiler house and dye plant will also be erected.

The enlargement will provide an ultimate capacity for the plant of 500 dozen hose per day of ten hours operation.

Cotton Yarn Mill for Waco.

Waco, N. C.—Posy Rhodes of Lincolnton, N. C., and associates are promoting a 5000-spindle cotton yarn mill to be erected at Waco on the Seaboard Air Line railroad. Citizens of Waco have subscribed \$75,000 toward the enterprise, the remainder of the funds to be supplied by Mr. Rhodes and other capitalists.

It is understood that the mill will soon be increased to 10,000 spindles with looms to work the product into cloth.

America Cotton Manufacturers to Meet.

Charlotte, N. C.—The twenty-seventh annual convention of the American Cotton Manufacturers' Association will be held at Richmond, Va., on May 16 and 17. There will be two sessions on the 16th, with the annual banquet that evening, and on the 17th the executive affairs of the association will be discussed in business session.

Hannah Pickett Mills to Erect 35 Dwellings.

Greenville, S. C.—Contract has been awarded to the Minter Homes Company of this city by the Hannah Pickett Mills of Rockingham for the erection of 35 dwellings for employees.

Cotton Facilities at Houston to Cost \$1,000,000.

Houston, Tex.—Wharves, warehouses, cotton compress and other units that will go to make up one of the largest cotton storage, compressing and deep-water terminal plants in Houston are to be built by Anderson, Clayton & Company, cotton factors of this city. The proposed improvements will cost approximately \$1,000,000, it is stated, and a site of thirty acres on the south side of the Ship Channel has been purchased.

Plans announced by W. C. Clayton call for concrete wharves 1500 feet in length, cotton warehouses and a high density compress. The storage capacity of the new facilities will be approximately 100,000 bales. Concrete construction will be used throughout. Considerable dredging of the Ship Channel will be necessary and contract for that work has been let. The property acquired by the company has a frontage of 2100 feet on the Ship Channel and it is likely the additional 600 feet of wharfage will be provided in the near future. It is expected that the plant will be ready for operation by August 1, in time for the next cotton season.

Mill Will Produce Knit Underwear.

Reidsville, N. C.—With an authorized capital stock of \$500,000, of which \$150,000 has been paid in, the Carter Underwear Company, to which reference was made in the MANUFACTURERS RECORD recently, will establish mill here for the production of knit underwear.

The company has bought a building and plans to produce 1000 dozen men's union suits weekly. Officers include William H. Carter, Needham Heights, Mass., president; W. L. Pannill, Reidsville, vice-president, treasurer and manager, and R. C. Graham, Reidsville, secretary.

Addition to Victor Mill at Greer.

Greer, S. C.—A four-story addition, 71 by 79 feet, is being added to the Victor plant here of the Victor-Monaghan Company and an additional complement of 120 looms, spooling, warping and slashing machinery will be installed. The company is also rearranging machinery in mills Nos. 1 and 2, installing motor drive, etc.

J. E. Sirrine & Company of Greenville are the engineers in charge.

Twister Building for Dunean Mills.

Greenville, S. C.—The twister building to be erected here for the Dunean Mills, reference to which was made in the MANUFACTURERS RECORD a few weeks ago, will be 133 by 185 feet, 2 stories, of reinforced concrete construction. The first floor will accommodate spoolers and winders, while 8056 new and 2304 old twistors will be installed on the second floor.

J. E. Sirrine & Company of Greenville are the engineers.

Strong Position of the National Banks.

A statement issued by the Comptroller of the Currency says that judging from an analysis just completed of the returns from 8225 national banks as of December 29, 1922 it may be said that our national banks now occupy a more commanding position that has been shown by the returns of any other call of the Comptroller since December 29, 1920. The aggregate resources are \$21,974,957,000 an increase of \$1,048,858,000 since September 15, 1922 or an increase since December of 1921 of \$2,031,215,000. Loans and discounts (including rediscounts of something more than \$262,400,000) totaled \$11,599,668,000, an increase of more than \$363,000,000 since September and of \$94,279,000 in the year. Total cash on hand is \$391,840,000, an increase of nearly \$60,000,000 since September and of more than \$50,000,000 during the year. Total deposits are \$17,420,481,000 or over \$821,000,000 more than in September or more than \$2,345,300,000 since December of 1921.

GOOD ROADS AND STREETS

Road Building in Various Sections of Oklahoma.

Oklahoma City, Okla.—Several important road construction projects are under way or in contemplation in Oklahoma, contracts having been awarded by the State Highway Commission for the construction of 6 miles of concrete road in Kay County between Ponca City and Newkirk. M. A. Swatek & Co., Oklahoma City, received the award at \$196,114. Contract was let for 7 miles gravel road between Poteau and Wister, in Le Flore County to T. C. Ottinger, of Hinton, Okla., on a bid for \$83,842.

In Stephens County, plans are being made for the construction of the Meridian highway extending north and south across the county and for the Ozark Trail extending east and west. The Lee and Bankhead Highways will also be graded and graveled and routes are now being surveyed. Bonds in the amount of \$800,000 were voted last fall for road construction in Stephens County.

Washington County also has an extensive road building program, and will expend \$700,000, bonds for which have been voted. Plans call for a paved road traversing the county north and south from the Kansas border to the Tulsa County line; Latimer County will build a road between Wilburton and Red Oak, while plans for a gravel road in Murray County, connecting Davis and Sulphur and extending to the south, will soon be completed.

Bids will soon be invited on a Johnson County project covering the construction of a gravel road from Tishomingo to the Carter County line, and for the construction of an 18-mile road in Pittsburgh County.

Road Contract Awarded and Bids Opened.

Tallahassee, Fla.—Contract has been awarded to the J. F. Morgan Paving Co. of Jacksonville for building 3.967 miles on road No. 5 in Manatee County, extending from Bradentown to the Sarasota County line. The cost will be about \$145,000.

The State Road Department has also opened bids for the following projects: No. 35 on road No. 1 in Escambia County, 5 miles, from Pensacola to Nunez Ferry, Hancock Bros., of Mobile, Ala., low bidders at \$152,411; No. 562-A on road No. 8 in Highlands County north of Lake Stearn, a little more than 5 miles, Cary & Turner, Bradentown, Fla., low bidders at \$47,679; No. 505, culverts on road No. 2 in Columbia County, Lutten Bridge Co. of York, Pa., low bidder at \$21,555.

Bids Wanted on Road Construction in Louisiana.

Baton Rouge, La.—The Louisiana Highway Commission will open bids at its office in this city on March 6 for the construction of 4.96 miles of road, extending from Pearl River Station to East Pearl River on the New Orleans-Mississippi highway in St. Tammany Parish.

This is federal aid project No. 126-B, and information as to location, character of work, extent and class of material and other details, may be obtained from the Commission, of which W. T. Peterman, is chairman. J. M. Fourmy is the State Highway Engineer.

Virginia Good Roads Association Elects.

Roanoke, Va.—At the 12th annual convention of the Virginia Good Roads Association in this city, the following officers were elected:

George P. Coleman, president; R. H. Angell, Roanoke; John A. Lesner, Norfolk; Miss M. Elizabeth Pidgeon, University; John W. Chalkley, Big Stone Gap; Guy P. Murray, Newport News, and H. N. Phillips, Richmond, vice-presidents; H. C. Litchford, Richmond, treasurer.

To Test Actual Stresses in Roads.

Actual stresses in concrete road slabs and subgrade conditions beneath are to be investigated in many states by the Bureau of Public Roads. A truck is now being equipped with suitable apparatus, including graphic strain gauges and an autographic deflectometer especially developed for the purpose. Data to be collected will include soil and moisture condition of the subgrade, design of slab, direction and magnitude of stresses, and deflection of slab under legal limit of loading as well as other loadings.

This investigation is to start early in the spring, and some of the Southern states will be visited first. Valuable information should be secured as to the strength of different types of design.

Putnam County Considering \$70,000 Road Bonds.

Palatka, Fla.—The Putnam County Commissioners have been petitioned to call an election on \$700,000 bonds for building hard-surfaced roads and constructing a concrete bridge across the St. Johns River at Palatka.

The road from the Clay County line south of Green Cove Springs to Palatka, the road between Palatka and the Alachua County line at Hawthorne and the road from Palatka to Crescent City will all be paved with brick. The links between San Mateo and Duns Creek and between Duns Creek and Sisco will also be paved.

Bituminous Limestone for Streets and Roads.

Florence, Ala.—Machinery is being installed by C. W. Ashcraft of this city at his deposits of bituminous limestone in Colbert County. It is the purpose to quarry this material and place it on the market for surfacing streets and roads.

The deposits are said to be practically on the surface of a 700 acre tract of land on the main line of the Southern Railway near Margerum, twenty miles from Muscle Shoals and twelve miles from the Tennessee River. The total deposit is estimated at 20,000,000 tons.

Kaufman County Awards Road Contract.

Kaufman, Tex.—Contract has been awarded by Kaufman County, J. E. Yates, Auditor, to F. P. McElwrath of Corsicana, Tex., at \$90,000, to grade and construct drainage structures on 10.74 miles of State highway No. 40, from Bushy Creek to the Kaufman-Dallas County line, Federal Aid project No. 136-X.

B. F. Williams of Kaufman is the engineer in charge and there is a total of \$175,000 available for the construction of the road.

Bids Opened for Road in Manatee County.

Tallahassee, Fla.—The State Road Department has opened bids for construction on project 570, a portion of road No. 5 in Manatee County between Bradentown and the Sarasota County line. Low bid was submitted by the J. F. Morgan Paving Company, of Jacksonville, at \$140,531. Contract will probably be awarded soon.

Beginning \$500,000 Building Operation.

In connection with a building development now begun, the Richmond Housing Co. of Richmond, Va., writes the MANUFACTURERS RECORD:

"We are just starting an operation for working men that will mean a total outlay of a half million dollars when completed, the first project being for ten houses which will be augmented from time to time in multiples of ten to fifteen. We are interested in pipe and pipeless furnaces, hot water heating plants for small residences, plumbing fixtures, roofing of various kinds, etc."

LUMBER AND BUILDING MATERIALS

Adverse Weather Restricts Lumber Industry.

Washington—Chiefly due to severe weather in the Pacific Coast country, the lumber movement of the country as a whole declined rather sharply last week as compared with the previous week, says the weekly report of the National Lumber Manufacturers Association. The slump in production in the Douglas fir region, owing to heavy snowfall, was so marked that it resulted in the reported total cut sagging below that of the corresponding week last year, though shipments were somewhat greater and orders considerably greater.

For the 380 currently reporting mills of all lumber producing associations affiliated with the National Association, shipments were 124 per cent and orders 150 per cent of production. The effect of the adverse weather is emphasized in the West Coast Lumbermen's percentages, shipments of its mills being 142 per cent, and orders 188 per cent of production. In the South, where the weather was favorable, shipments were 108 per cent and orders 125 per cent of production. The 347 reporting mills having normal production figures showed current production 70 per cent, shipments 88 per cent and orders 108 per cent of normal production.

"Nearly ideal weather prevailed throughout most southern pine territory last week," wires the Southern Pine Association, New Orleans, "production and shipments showing fair increase and orders dropping slightly. The car supply is adequate.

"The Association's annual survey of wages showed for January 1923 a general advance of about 5 per cent in skilled and common labor combined, while common labor only for the entire operation increased about 6½ per cent, compared with January 1922. The common labor increase was in woods crews only. The divisions reporting a slight decrease during the year were combination skidder and loader, wagon and team logging and the carpenter gangs in plants."

The West Coast Lumbermen's Association wires from Seattle as follows:

"Last week's storms cut lumber production in the fir region 38 per cent below normal, resulting in a cut of only 55,994,675 feet against sales of 105,412,176 feet and shipments of 79,261,662 feet. The mills have now resumed regular operation except those unable to get logs. Woods operations are still very irregular and may continue so for another week or ten days."

The California White & Sugar Pine Manufacturers Association telegraphs from San Francisco that while the car supply is satisfactory, logging operations have been curtailed on account of weather conditions. It is expected that the mills shut down during the winter will probably start saw-

ing operations earlier than usual. The principal demand continued to be for eastern shipment and for Missouri river points.

The Western Pine Manufacturers Association reports from Portland, Oregon, that the production at many mills has been impeded by the heavy snows of last week.

The Northern Pine Manufacturers Association, Minneapolis, reports that the severe blizzard of February 13-14 resulted in the curtailment of production and shipments.

The following table summarizes the lumber movement for the past week in comparison with the corresponding week of 1922 and the preceding week:

	Week 1922. 380	Past Week. Corresponding 386	Preceding Week (1923) (Revised) 392
Mills			
Production	162,966,423	176,217,442	207,349,605
Shipments	202,465,210	174,751,321	251,310,072
Orders	244,226,301	177,297,751	281,942,490

For the first seven weeks of 1923 as compared with the first seven weeks of 1922, the record stands as follows:

	Production.	Shipments.	Orders.
1923	1,327,544,207	1,653,746,768	1,890,134,232
1922	1,233,721,350	1,149,705,305	1,206,793,070
1923 Increase	93,822,857	504,041,463	682,341,162

Orders Drop and Shipments Increase.

Norfolk, Va.—The North Carolina Pine Association, reporting for the week ended February 17, states that lumber orders reached a total of 8,216,853 feet, as compared with 9,377,400 feet for the previous week. Shipments amounted to 9,676,986 feet, as against 7,975,303 feet for the previous week, while the production was 7,944,718 feet, as compared with 7,676,023 feet for the previous week.

The following is a summary for the week, 54 mills reporting:

	Total feet	Average feet per Mill
Orders	8,216,853	152,164
Shipments	9,676,986	179,203
Production	7,944,718	147,124
Normal production	15,960,000	295,555 per cent
Orders below shipments	1,460,133	15
Orders above actual production	272,135	4
Shipments above actual production	1,732,268	22
Orders below normal production	7,743,147	48
Shipments below normal production	6,283,014	39
Actual production below normal	8,015,282	50
Decrease in orders compared with last week	1,160,547	12

Southern Retail Lumber Dealers Elect.

Memphis, Tenn.—At the convention of the Southern retail Lumber Dealers' Association in this city, the following officers were elected: R. E. Montgomery, Jr., Memphis, president; J. B. Webb, Greenwood, Miss., vice-president and Lester C. Mitchum, Memphis, secretary.

LUMBER MOVEMENT FOR SEVEN WEEKS, AND FOR THE WEEK ENDING FEBRUARY 17.

	Production 1923	1922	Shipments 1923	1922	Orders 1923	1922
Southern Pine Association						
Total	487,937,876	519,218,854	568,645,012	444,194,631	679,040,107	474,046,089
Week (125 mills)	69,888,130	73,243,079	75,630,144	70,118,375	87,428,272	73,061,875
West Coast Lumbermen's Ass'n.						
Total	569,777,405	525,912,587	702,261,401	469,929,936	784,257,735	460,030,482
Week (134 mills)	55,994,675	79,154,189	79,261,662	69,783,904	105,412,176	69,575,525
Western Pine Mfrs. Ass'n.						
Total	82,718,000	57,720,000	163,361,000	118,470,000	173,200,000	129,250,000
Week (37 mills)	10,809,000	7,594,000	19,156,000	15,720,000	23,750,000	13,475,000
Calif. White & Sugar Pine Mfrs.						
Total	21,004,000	13,692,000	37,026,000	20,310,000	46,248,000	42,630,000
Week (3 mills)	18,000	868,000	1,668,000	1,892,000	890,000	2,475,000
Calif. Redwood Ass'n.						
Total	48,600,000	48,015,000	56,897,000	41,128,000	86,337,000	40,246,000
Week (13 mills)	7,821,000	6,653,000	8,292,000	7,513,000	8,829,000	5,957,000
North Carolina Pine Ass'n.						
Total	51,265,826	56,045,909	57,673,955	43,167,738	62,855,390	48,071,499
Week (38 mills)	6,464,718	7,278,174	7,830,904	5,661,342	7,811,853	8,138,351
Northern Hem. & H'wood (Sft'w'd).						
Total	15,651,000	12,117,000	14,044,000	12,505,000	16,220,000	12,519,000
Week (21 mills)	1,996,000	1,177,000	2,442,000	1,472,000	2,060,000	1,234,000
Northern Pine Mfrs. Ass'n.						
Total	50,590,100		53,838,400		50,976,000	
Week (9 mills)	6,779,900		5,780,500		6,623,000	
General Total for 7 wks (sft'w'd)	1,327,544,207	1,233,721,350	1,653,746,768	1,149,705,305	1,890,134,232	1,206,793,070
Northern Hem. & H'd'w'd (H'd'w'd)						
7 weeks	21,806,000		19,370,000		16,796,000	
General Total for week	162,966,423	176,217,442	202,465,210	174,751,321	244,226,301	177,297,751

LUMBER TRADE SHOWS UPWARD TREND.

Total Exports in 1922 Twenty-seven Per Cent Greater Than in 1921; But Forty Per Cent Less Than Before the War.

In 1922 our total exports of lumber amounted to 1,532,934,000 board feet, as compared with 1,204,808,000 feet in 1921, an increase of 27 per cent. The 1913 exports of lumber were 2,576,233,000 feet, making the 1922 exports 40 per cent less than 1913, says the Lumber Division of the Department of Commerce. The exports of boards, planks, and scantlings in 1922, by months, were as follows:

1922	Southern yellow pine		Douglas fir		Oak		Gum		All		Total
	M feet	M feet	M feet	M feet	M feet	M feet	M feet	M feet	M feet	M feet	
January	38,547	77,093	7,470	4,711	20,854	148,675					
February	35,785	59,485	6,447	2,920	21,336	125,973					
March	34,585	87,158	6,628	3,793	27,705	159,869					
April	46,103	54,483	7,899	2,670	21,652	132,807					
May	44,712	52,757	8,882	3,974	25,626	136,953					
June	41,495	56,467	9,861	3,835	40,721	152,379					
July	38,211	43,770	10,401	4,988	18,488	115,858					
August	45,768	35,270	10,808	4,049	27,233	123,233					
September	37,150	36,726	8,284	4,261	20,522	106,943					
October	35,204	39,041	10,759	3,673	21,475	110,152					
November	42,852	36,574	11,870	3,828	20,119	115,243					
December	42,270	36,327	9,158	2,848	24,494	115,097					
Monthly average 1913	100,432	56,302	22,108	6,510	12,653	196,005					
Monthly average 1920	54,368	36,602	8,764	2,265	27,228	129,227					
Monthly average 1921	36,481	37,936	5,785	2,303	18,082	100,587					

The leading wood in the year under review was Douglas fir, of which 614,704,000 feet went abroad. In 1921 the quantity of Douglas fir exported was 455,233,000 feet. The 1922 increase was 35 per cent. The export of Douglas fir in 1913 amounted to 665,295,000 feet. During 1922 nearly one-half the Douglas fir went to Japan, nearly one-fifth to China, and the next largest quantities to Australia and Peru.

The second leading export wood in 1922 was Southern yellow pine, 474,258,000 feet being exported, an increase of about 10 per cent over 432,736,000 feet in 1921. The 1913 figure was 669,737,000 feet. Nearly one-quarter of the Southern yellow pine in 1922 went to Argentina, nearly one-sixth to Cuba, and less amounts of importance to Mexico, United Kingdom, Canada, Spain, and Belgium. A very large increase occurred in the yellow pine exported to Canada over 1921 and the export to Spain was 184 per cent over 1921. Mexico took about 60 per cent less.

In other softwoods, comparing 1921 with 1922, spruce increased about five times to 35,178,000 feet, redwood more than doubled to 33,143,000 feet, white pine increased 78 per cent to 25,811,000 feet and western yellow pine more than doubled to 8,358,000 feet. However, other softwoods, not specified, declined one-third.

Oak was the third leading export wood, and the leading hardwood in 1922, increasing by 59 per cent over 1921 to 108,214,000 feet. In 1913, 287,855,000 feet of oak were exported. Oak exports to the United Kingdom increased over 60 per cent to 49,200,000 feet, to Canada over 50 per cent to 32,338,000 feet, and increased amounts also went to Belgium, Argentina, Uruguay, and Spain.

Southern Pine Sales Over 87,000,000 Feet for Week.

New Orleans, La.—Orders for Southern pine lumber for the week, ended February 16, reached a total of 87,428,272 feet, according to reports to the Southern Pine Association. This was an average per mill of 699,426 feet, as compared with an average for the previous week of 705,284 feet. Shipments totaled 75,630,144 feet, an average per mill of 605,041 feet, as compared with the previous week of 525,491 feet. A total of 69,888,170 feet was produced during the week, an average per mill of 559,105 feet.

The following is a summary of 125 mills for the week:

	Cars	Feet
Orders on hand beginning of week	20,080	437,904,640
Orders received during week	4,009	87,428,272
Total	24,089	525,332,912
Shipments during week	3,468	75,630,144
Orders on hand end of week	20,621	449,702,768

Portland Cement Stucco in Home Building

By E. D. BOYER, NEW YORK.

To many people the suggestion of the use of Portland cement stucco in the building of their houses brings to their minds the picture of a home as uninteresting in its exterior appearance as the dull gray color of the sidewalk upon which they walk. While it is true that for a long time stucco finishes were limited to a few standardized types and that these types of finishes were unattractive to many prospective builders of homes, it is now true that with the introduction of white Portland cement it is possible to make even these old standardized types of finishes very much more interesting and attractive, and in addition there is the wide field of coloring and texture, limited only by the ingenuity and artistry of the architect and the stucco contractor, which the introduction of white Portland cement opens up. Colored effect in stucco can be obtained to suit any individual taste, with a texture which can vary from the smooth appearance of dressed stone to the rough appearance of weather beaten rock which gives to the walls a surface of life and color.

The coloring in stucco can be obtained in two ways; by use of mineral pigments or colored sands. The combination of white Portland cement with these colored aggregates makes possible the true color value of the aggregate, whereas the use of grey Portland cement would tend to obscure the tone. The preferable method of coloring stucco is by using white Portland cement with colored sand or stone chips. These can be made to give any pleasing desired tone and will give permanent satisfaction. The use of mineral pigment also will give the desired color tone but a much greater degree of care must be taken in the selection of the pigment and in the workmanship of the plastic stucco. The above types are known as the "integral methods" of coloring stucco.

There is also another method of coloring stucco which permits the use of a large size aggregate and is known as the colored aggregate stucco finish. This stucco finish can be obtained in two ways; by throwing stones into the soft finish coat of stucco and lightly pressing the stones with a wooden float into the soft stucco, so as to firmly imbed the stones. The other method is to mix the colored stones as an integral part of the finish coat and washing off the surface cement after it has had a sufficient time to set, with a damp sponge, or if the cement has hardened too much to be removed easily, a weak acid wash can be used.

The degree of roughness should depend upon the location of the house with respect to the roads. The roughness of the texture should increase with the distance of the house from the main highway. These textures can be obtained by the proper working of the plastic material and require some experimenting in the field to get the desired effect.

In the using of Portland cement for stucco there is a point which should be kept in mind to obtain successful results. On a dry sunny day one often hears the expression that "this is a good day for the concrete to dry out." This kind of a day is one in which serious injury can be done to the newly placed stucco. Portland cement, unlike hydrated lime, does not depend on the evaporation of the water and the absorption of carbon dioxide from the air for its set. The set of Portland cement is due to the water entering into a chemical combination with the cement and the best results are obtained when the stucco is kept moist for at least several days after its placing.

Stucco when used in the construction of houses combines in itself all the principal qualities desired in the requirements of a home. Stucco permits the expression of wide individual taste in the exterior finish of the house. It is durable because the base of stucco is a pulverized rock which is made into an artificial stone by the addition of water. Being an artificial stone its fire-resisting qualities are as great as the resistance of the materials from which it is made. The use

of stucco does away with the annual cost of painting the exterior of the house, and as stucco is impervious to heat or cold the stucco-finished home will repel the heat of summer and the cold of winter.

Directory of Sawmills and Planing Mills.

The third edition of the Southern Lumberman's Directory of American Sawmills and Planing Mills is the most complete of all issues of this comprehensive reference work which is published by "The Southern Lumberman," Nashville, Tenn. It is truthfully stated in the introduction to this book of more than 1100 pages, that until the publication of these directories was undertaken it had not been possible to secure an accurate list of sawmills and planing mills with details concerning their respective equipment and as to the character of their output, but the trained organization which the publishers had built up during forty years of business enabled them to take up the work of compiling and publishing an accurate directory. This volume is of great value to buyers of and wholesale dealers in lumber, to manufacturers of sawmill and planing mill machinery and equipment, besides others whose business may require them to obtain information such as it contains. It appears that there are fifty-one kinds of lumber which are commercially handled and each of the mills producing one or more of them is represented in the book. The data is classified by states and then by towns and postoffices. The book is well made throughout, the printing and paper being superior and the binding appropriate and substantial.

Activities of Iron Blast Furnaces in 1921.

Considerable decrease in the activities of the establishments engaged chiefly in the manufacture of pig iron during the year 1921 as compared with 1919, are shown by Census Bureau reports just issued. The total value of products reported for 1921 amounted to \$419,771,200, and for 1919 to \$801,062,300, a decrease of 47.6 per cent. However, there was an increase of 31.1 per cent over 1914, when the value of products reported amounted to \$317,654,000.

Of the 134 active establishments reported in 1921, 42 were located in Pennsylvania; 30 in Ohio; 13 in Alabama; 9 in Michigan; 8 in New York; 6 in Illinois; 4 each in Tennessee and Virginia; 3 each in Indiana, West Virginia and Wisconsin; 2 each in Missouri and New Jersey; and 1 each in Colorado, Kentucky, Maryland, Massachusetts and Minnesota. Seventy-three establishments which operated in 1919 were idle during the entire year 1921. Of these, Pennsylvania reported 22; Ohio, 16; Alabama and Virginia, 8 each; Tennessee, 6; Kentucky, 3; Michigan, 2; and Connecticut, Maryland, Minnesota, Missouri, New Jersey, New York, Texas, and West Virginia, 1 each.

The returns indicate that the combined output of all establishments was only approximately 40 per cent of the maximum capacity, based upon a demand requiring full running time.

The statistics for 1921, 1919, and 1914 are summarized in the following statement, those for 1914 being added to show pre-war conditions; the figures for 1921 are preliminary and subject to such change and correction as may be necessary from a further examination of the original reports:

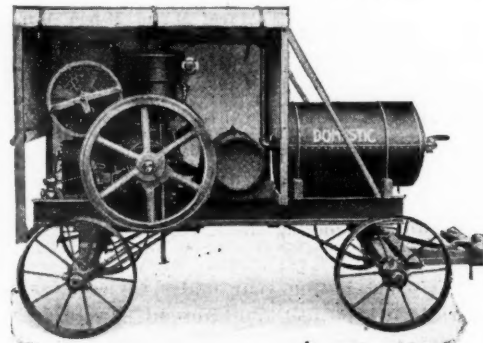
	1921	1919	1914
Number of establishments.....	134	195	160
Persons engaged	23,219	46,956	33,194
Proprietors and firm members	7	41	15
Salaried employees	4,244	5,255	3,823
Wage earners (aver. number)	18,968	41,660	29,356
Salaries and wages.....	\$40,633,400	\$87,204,400	\$28,896,200
Salaries	11,263,700	13,435,000	6,114,600
Wages	29,369,700	73,769,400	22,781,600
Contract work	547,700	692,300	285,100
Cost of materials.....	361,049,500	621,286,500	264,580,000
Value of products.....	419,771,200	794,466,600	317,654,000
Value added by manufacture*	58,721,700	173,180,100	53,074,000

* Value of products less cost of materials.

MECHANICAL

Portable Gasoline Power Air Compressor.

A portable gasoline-driven air compressor on which patent has been applied for is shown in the illustration herewith. It is one of several patterns made by the Domestic Engine & Pump Company, of Shippensburg, Pennsylvania, and is shown as No. 50 "Domestic." This machine which is of popular size is like the others of its line practical and efficient. It has two engine cylinders of 5 inch bore and 6



COMPRESSOR READY FOR SERVICE.

inch stroke and one air cylinder of 5½ inch bore and 6 inch stroke, the former being horizontal and the latter vertical. The normal speed is 610 revolutions per minute and the displacement is 50 cubic feet per minute.

It is to be noted that the connecting rods for all three cylinders are connected to one crank pin, the result of this construction being to make each revolution of the engine a power stroke and the power is transmitted directly to the air cylinder instead of having to be carried to the crank shaft, then to the balance wheels and back again to the air cylinder. The connecting rod and the main bearings are of bronze with genuine babbitt metal lining and the connecting rod bearings are flooded with oil pumped through the center of the crank shaft. There is a sight glass so that the operator can always see how much oil is being fed to these bearings and there is also a separate sight feed oiler for supplying oil to the engine and compressor cylinders. The air compressor has plate valves of special alloy steel, the valve cages being submerged in water that keep them cool. The radiator is made of copper tubes through which air is kept moving by a fan. The air receiver is 36 inches long and 20 inches in diameter and it is tested to a pressure of 250 pounds.

A steel cab, with curtains covers the engine and compressor, the whole being mounted on a two horse truck having steel wheels 24 inches high and 4 inches wide. The extreme length is 8 feet 1 inch, width 5 feet 6 inches and height 6 feet. It weighs 2500 pounds.

Plans Ready for Ocklocknee Power Development.

Charlotte, N. C.—Plans have been completed by Mees & Mees, hydro-electric engineers of this city, for the Ocklocknee River power development about 9 miles from Tallahassee, by the West Florida Power Company, recently organized with a capital stock of \$1,000,000.

The proposed hydro-electric plant has been designed for a yearly capacity of 10,000,000 kilowatt hours and is intended to serve Tallahassee and vicinity, although it is proposed that lines shall be extended to Quincy and Havana, Florida, and to Cairo and Thomasville, Georgia. Main offices of the new company will be maintained at Tallahassee.

Construction Department

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained. Further facts about any incomplete or incorrect item reported in these columns are always appreciated.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers, and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$20.00 a year.

Airplane Plants, Stations, Etc.

Va., Quantico—For proposal details See Mchy. Wanted—Hangers, etc.

Bridges, Culverts and Viaducts.

Ala., Centerville—State Highway Commsn. Montgomery, Ala., will construct bridges near Woodstock, F. A. Proj. 120, Bibb County, lowest bidder E. L. Batson, Birmingham, Ala. at \$41,690.93. (Lately noted.)

Ala., Luverne—For full details see Road and Street Construction.

Mo., Kirksville—Adair and Knox County Comms. contemplate constructing bridge.

Mo., Mexico—For full details see Water Works.

N. C., Clarkton—State Highway Dept., Raleigh, N. C., plans constructing concrete bridges and fill in Big Swamp, between Clarkton and Lumberton.

Okl., Fairview—Major County Comms. let contract to Boardman Co., Oklahoma City, at \$54,000 to construct concrete and steel bridge over Canadian River on Abo Pass highway between Fairview and Selling; four 135 ft. spans; C. H. Salwaechter, County Engr. (Lately noted.)

Tex., Del Rio—Val Verde County Comms., R. T. Hunnicut, Judge, let contract to Rice & Bates, Austin, Texas, at \$19,327.47 to construct reinforced concrete bridges and culverts on State Highway, No. 12.

Tex., El Dorado—For proposal details see Mchy. Wanted—Road and Bridge Construction.

Tex., Sinton—Bureau of Public Roads, Fort Worth, Tex., approved building 3 span concrete bridge over Bayou creek, 4 mi. south of Mathis, San Patricio County; approx. cost \$9392, with \$4000 Federal Aid.

Va., Fredericksburg—State Highway Commsn., H. G. Shirley, Chmn. Richmond, Va., let contract to Major Construction Co., Front Royal, Va., at \$4888.80 for steel and concrete bridge over Spottsylvania Power Co.'s Canal, at Falmouth, Va., and at \$20,413.35 for concrete roadway from Falmouth Bridge to corporate limits of Fredericksburg, being connecting link of Richmond-Washington Highway. (Lately noted.)

Va., Richmond—State Highway Commsn., For proposal details see Machinery Wanted—Road and Bridge Construction.

Va., Richmond—State Highway Commsn. opened bids for construction of bridge over Morrell Creek; lowest bidder H. J. Donnell Co., Lexington, Va. (Lately noted.)

Canning and Packing Plants.

Ala., Birmingham—E. P. Allen Provision Co., capital \$75,000, inceptd. with E. P. Allen, Prest.; Harold F. Knox, Secy.

Ala., Opelika—Goody Blanton purchased and will operate Opelika Packing Plant.

Fla., Clermont—For full details see Land Developments.

Fla., Jacksonville—Fernandina Shrimp Co., capital \$10,000, inceptd. with A. C. George, Prest.; C. H. Mann, Sec'y-Treas.

Ky., Bowling Green—Bowling Green Canning Co., inceptd. by W. E. Garth, W. J. Potter, J. Tom. Dishman, has site on West Main St. and will erect canning plant.

Va., Petersburg—K. N. Ellis, Agricultural Agt. of Chamber of Commerce, interested in organizing company with \$100,000 capital to establish meat packing plant.

Clayworking Plants.

N. C., Belmont—Continental Brick & Tile Co., capital \$50,000, inceptd. with J. G. Gullick, Prest., (temporary address Chapel Hill, N. C.), have under construction plant with daily capacity of 30,000 to 40,000 common and face brick; probably enlarge next year.

N. C., Four Oaks—Meadow Brick Co., capital \$25,000, inceptd. by R. B. Strickland, D. H. and J. W. Sanders.

Tenn., Knoxville—Cherokee Brick Co., capital \$125,000, inceptd. with Roy Newman, Prest.; J. C. Wright, Secy-Treas.; has site of 23 acres on Chestnut Ridge and will install brick plant with daily capacity of 40,000 brick.

Va., Suffolk—American Brick Corp., R. L. Jacobs, Prest., let contract to Riddick & Curry, Suffolk, for construction of plant; 3 stories; 55x60 ft.; mill construction; daily output 25,000 brick; install brick mchy., electric motors, cost \$6000. (Lately noted.)

Coal Mines and Coke Ovens.

Ala., Jasper—Sartain-Boyer Coal Co., capital \$150,000, inceptd. by Chas. M. and F. M. Sartain, Frank Boyer.

Ala., Tuscaloosa—Alco Coal Co., capital \$20,000, inceptd. by J. D. Henderson, Hunter M. Smith, Fleetwood Rice.

Ky., Hopkins County—Dempster Construction Co., George R. Dempster, Prest., Knoxville, Tenn., has secured contract to strip and mine coal deposits on more than 2000 acres land, requiring several years to complete; will develop project with steam shovels, estimated removal of 100,000,000 cu. yds. of earth and stone; estimated output of coal 16,000,000 tons.

Ky., Pineville—I. X. L. Coal & Mining Co., capital \$25,000, inceptd. by E. R. Martin, M. D., and J. E. Bell.

Ky., Whitesburg—White Elkhorn Mining Co., capital \$25,000, inceptd. by Thomas Fugate and J. W. Craft, both Hazard; G. H. Rumstadler, Detroit, Mich.

W. Va., Charleston—Standard Thacker Coal Co., increased capital from \$25,000 to \$150,000.

W. Va., Huntington—Pond Creek Pocahontas Co., inceptd. with Thomas B. Davis, Prest.; F. W. Batchelder, Secy-Treas.; will develop 2500 acre tract of coal land in McDowell County, interests of the Pond Creek Coal Co.,

and the Island Creek Coal Co.; annual capacity of 750,000 tons.

W. Va., Huntington—Coal River Collieries Co., Harry Leaberry, Prest., increased capital from \$2,000,000 to \$2,500,000.

W. Va., Monongalia County—E. H. Gilbert and R. M. Davis, both Morgantown, W. Va. have acquired 138 acres coal land in Cass Dist., will develop.

Cotton Compresses and Gins.

Mo., Poplar Bluff—Boeving Bros., reported interested in establishment of cotton gin.

Tex., Alice—Alice Gin Co., capital \$32,000, inceptd. by D. C. Daniel, R. M. and H. W. Johnson.

Tex., Snyder—George Finberg, Prest and Gen. Mgr. Western Compress & Storage Co., Fort Worth, will rebuild cotton compress; cost \$150,000.

Drainage Systems.

Fla., Fort Pierce—W. H. Byington, 527 5th Ave., New York, and associates are interested in formation of a 75,000 acre drainage district, adjoining the present North St. Lucie river district on the north, west and south.

Fla., Inverness—George W. Scofield, Inverness, and Newton R. Frost, St. Paul, Minn., are interested in organizing drainage district to reclaim portion of the Withlacoochee river basin in Citrus County.

N. C., Clinton—Sampson County Comms. contemplate organizing drainage district to reclaim approx. 200,000 acres land in the Great and Little Coharie and Seven Mile swamps; also plan bond issue; H. L. Godwin, of Dunn, N. C. interested; F. A. Bartel, U. S. Drainage Engr.

Electric Light and Power Plants.

Ala., Albertville—For full details see Water Works.

Ala., Anniston—For full details see Land Development.

Fla., Clermont—For full details see Land Developments.

Fla., Cocoa—Southern Utilities Co. acquired and will improve Cocoa Electric Light & Ice Co.'s plant.

Fla., Tallahassee—West Florida Power Co., has plans by Mees & Mees, Engrs., Charlotte, N. C., for development of Ocklocknee River nine mi. from Tallahassee; develop about 10,000,000 K. W. yearly; will probably extend lines to Quincy and Havana, Fla., Cairo and Thomasville, Ga.

Fla., Trilby—J. E. Wade, Mgr. electric light plant let contract to Delco Lighting Co. for improvements to plant.

La., Rayne—For proposal details see Mchy. Wanted—Water and Electric Light Improvements.

La., Shreveport—For full details see Land developments.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Md., Baltimore—United Railways & Electric Co., Herbert B. Flowers, Gen. Mgr., Continental Bldg., will construct 4 automatic sub-stations in vicinity of Park Ave. and Mulberry Sts., Gay and Lombard Sts., Guilford Ave. and Pleasant Sts., Caroline St. and Fairmount Ave.; stations will require about a year to build and equip, cost about \$500,000 each; contract for equipment let to Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa., Adrian Hughes, Gen. Supt. of Power.

Miss. Corinth—For full details see Water Works.

Mo., Marthasville—Marthasville Electric Light & Power Co. will construct electric light distributing plant. (Lately noted incorporated.)

Tenn., Livingston—Cumberland Power Co., main office in Bridge Bldg., Nashville, Tenn., managing office Lebanon, Tenn., G. S. Nune-maker, in charge, purchased Livingston Light and Power Co.'s plant, consisting of 8 mi. transmission line, water power plant, and oil burning for stand-by; will construct new lines to connect Livingston with main water power plant at Rock Island, distance of some 25 mi.; in about 2 months will call for construction bids. (Lately noted.)

Tex., Dallas—Pacific Avenue Improvement Assn. let contract to Eugene Ash Electric Co., Fort Worth, and Western Electric Co. for Pacific Ave. white way; cost approx. \$30,000. (Lately noted.)

W. Va., Paw Paw—Geo. S. Filler interested in installation of private electric lighting plant. (See Mch. Wanted—Electric Lighting Plant.)

Flour, Feed and Meal Mills.

Mo., Berger—Farmers Elevator Assn., capital \$12,000, inceptd. by G. E. Dierlerle, J. B. Alleman, W. H. Lervs.

Mo., Springfield—Lipscomb Grain & Seed Co. planning to erect grain elevator and warehouse at 540 W. Phelps St.; capacity of elevator 40,000 bu. wheat; cost \$150,000.

N. C., High Point—Ki-Bo-Mil Supply Co., capital \$100,000, inceptd. by F. P. Kiser, C. R. Bowman, C. E. Miller.

S. C., Lexington—Laurel Falls Flour Mills, Henry D. George, Prop. will rebuild burned flour mill; 60x60 ft.; ordinary construction; daily output 100 bbls. flour. (See Mch. Wanted—Flour Plant Machinery.)

Foundry and Machine Plants.

Ky., Louisville—Lawler Machinery Co., capital \$10,000, inceptd. by Dan W. Lawler, Benedict Elder and others.

Ky., Louisville—Lerch-Shumate Bolt Co.,

inceptd. by W. A. Shumate, F. J. and M. F. Lerch.

Md., Baltimore—Bartlett Hayward Co., 200 Scott St. has plans for erection of concrete foundry at Scott and McHenry Sts.; Parker, Thomas and Rice, Archts., Union Trust Bldg.

Mo., St. Louis—Omar Tool & Machine Co., capital \$20,000, inceptd. by W. G. and M. F. Ehrhardt, F. E. A. Brock.

Mo., St. Louis—Babbitt Metal—Frictionless Metal Co., C. W. Bourne, Prest. leased 3-story building on Cass Ave. and Collins St., will establish plant for mf. of babbitt metal; now maintains factories at Richmond, Va., Montreal, Can. and branch office at Chattanooga, Tenn. all of which will be consolidated in St. Louis.

N. C., Charlotte—Southern Ice Machine Co., F. A. Owens, Prest. (lately noted) increased capital to \$75,000 will secure building and later to erect plant on own property; mf. refrigerating plants from 1 to 10 tons capacity.

Tenn., Memphis—Economy Ice Machine Co., capital \$150,000, inceptd. by O. H. Hammer, H. M. Coleman and William J. Bacon; mf. refrigerating mchy.

Tex., Wichita Falls—Pump Jacks—Southwestern Mfg. Co., organized with T. B. Smock, Treas.; F. E. McConnell, Gen. Mgr.; to mf. pump jack for use in oil fields; H. T. Scott, inventor.

Gas and Oil Enterprises.

D. C., Washington—Washington Gas Light Co., stockholders will vote March 7 on issuing \$15,000,000 stock.

La., Lake Charles—Texla-Coastal Oil Co., Inc., capital \$100,000, chartered with Chas. G. Hooks, Prest., Beaumont, Tex.; Geo. W. Hooks, Secy.-Treas.

Mo., Berger—Berger Oil Co., capital \$6000, inceptd. by Alfred Bade, Gussie Miller, Louis Reutter.

Mo., St. Charles—Crucible Oil & Refining Co. of St. Joseph, and Wichita, Kansas, considering establishment of oil products mfg. and refining plant.

Okla., Cement—Cement Gas Co. will improve distributing system.

Okla., Chickasha—Chickasha Gas & Electric Co., F. D. Shaffer, Mgr. will expend about \$30,000 in extending distribution system. (Lately noted.)

Tex., Electra—Waggoner Refining Co., capital \$300,000, inceptd. by W. T., E. P. and G. L. Waggoner.

Tex., Wichita Falls—Oil Investment Co., capital \$75,000, inceptd. by R. W. Ramming, L. A. Staley, M. Fowler.

Va., Berryville—Clarke County Oil Co., capital \$25,000, inceptd. with D. L. Ramsburg, Prest.; G. L. Carter, Secy.

W. Va., Clarksburg—P. K. Oil & Gas Co., capital \$25,000, inceptd. by A. H. Cummings, J. E. Stealey, C. A. Butcher.

W. Va., Clarksburg—Clarksburg Drilling Co., capital \$10,000, inceptd. by Early Davis, Charles Rapp, Raymond Davis.

W. Va., Clarksburg—W. F. Allen & Co., capital \$50,000, inceptd. by W. F. Allen, Henry W. Thresher, Earle Brane.

W. Va., Clarksburg—LeRoy Oil Co., capital \$25,000, inceptd. by E. L. Spraker, D. J. Carter, L. J. Shahan.

Ice and Cold-Storage Plants.

Ala., Bay Minette—Consumers Ice & Creamery Co., increased capital to \$25,000; changed name from Consumers Ice & Supply Co.

Ala., Citronelle—Citronelle Light & Power Co., contemplate installing 5 ton artificial ice plant, capable of expanding to 10 ton capacity. (See Mch. Wanted—Ice Plant.)

Ala., York—F. I. Derby, contemplates establishing ice plant in connection with planing mill.

Ark., Camden—Valley Ice Co., E. T. Reynolds, Mgr., let contract to J. C. Lewis, 301 Southern Trust Bldg. to erect 50x90 ft. mill construction building; mchy. purchased; daily output 30 tons ice and 500 gals. ice cream. (Lately noted.)

Mo., Savannah—Savannah Ice Co., capital \$15,000, inceptd. by A. C. and J. O. Trapp and others.

Tex., Gonzales—Stahl Brothers, will erect 2 story, 100x165 ft. cold storage plant, equip with all modern conveniences including its own electric light system.

W. Va., Parkersburg—Parkersburg Ice Co., re-organized with Reese Blizzard, Prest. has acquired building on West 7th St. and equip as an auxiliary to present plant on 6th St.; increased capital to \$250,000. (Lately noted.)

Land Developments.

Ala., Anniston—Sunset Land Co., Hillier Robinson, Prest. let following contracts for improvements in connection with development of residential site: for constructing water works system to Sullivan, Long & Hagerty of Bessemer; for grading, sewerage, sidewalk, curbing and guttering construction to Mitchell Bros. of Birmingham; for bitulithic paving to J. F. Morgan Paving Co., Birmingham; will install lights, etc.; Robt. L. Totten, in charge of engineering work.

Ala., Selma—Town and County Co., increased capital to \$60,000.

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MANUFACTURERS RECORD

BALTIMORE, MD.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Fla., Apopka—North Orange Land & Development Co., capital \$10,000, inceptd. with Wm. Edwards, Prest.; E. R. Blanton, Secy.-Treas.

Fla., Clermont—American Riviera Fruit Corp., lately noted inceptd. with \$3,000,000 capital, organized with H. C. Brown, Prest.; W. B. Wait, Secy.; will develop 7500 acres for townsite, install electric light system; sewer; water works; roads and streets; construct packing and by-products plant.

Fla., Miami—Gordon Gardens, inceptd. with \$10,000 capital, P. B. Mangus, Mgr., will develop about 5 acres first, then increasing to 20 acres for propagation of ornamental plants, palms, etc., will install irrigating plant. (Supersedes previous item.)

Fla., Miami—Palm Island Investment Co., capital \$10,000, inceptd. with J. H. Koch, Prest.; B. J. MacCastland, Secy.-Treas.

Fla., Ocala—Silver Springs Estates, capital \$100,000, inceptd. with John A. Manly, Prest.; E. H. Martin, Secy.

Fla., Vero—Ocean and Indian River Development Co., capital \$60,000, inceptd. with Charles Harris, Prest.; Charles B. Jennings, Secy.-Treas.

Fla., West Palm Beach—Fresh-Water Co., Inc., chartered with M. S. McCracken, Prest.; Sallie McCracken, Secy.-Treas.

Fla., West Palm Beach—Security Development Co., capital \$10,000, inceptd. with L. H. Jones, Prest.; R. M. Griffin, Secy.-Treas.

Fla., Wewahatcha—Lake Orange Grove Co., capital \$40,000, inceptd. with J. S. Beard, Prest.; H. T. McKinnon, Secy.-Treas.

Fla., Zephyrillus—F. H. Adams interested in organization of company with \$25,000 capital to develop 60 acres for truck farm; will irrigate about 20 acres.

Ga., Columbus—Mr. Chappell, of Rose Hill Co., interested in development of Rose Hill Heights for residential site; have let contract to Coates Construction Co. for 1½ mi. sidewalks; also let contract to M. H. Gardiner for 7100 cu. yds. of grading; will construct 4000 ft. of sanitary sewers and 4000 ft. of water mains; Jno. B. Ryer, Jr., Landscape Engr.

La., Shreveport—Southern Nursery & Dairy Products Co., Inc., C. H. Elliott, Secy., capital \$50,000; will develop 1700 acres; will clear drain and develop nursery and dairy; install electric lights; water works; sewer system; construct dairy barns; amount to be expended \$35,000; later will construct creamery. (Lately noted.)

Md., Baltimore—The Rullman Co., 626-28 Equitable Bldg., lately noted inceptd. with \$20,000 capital, organized with Geo. M. Rullman, Prest.; E. R. Smith, Secy.; will develop about 5 acres on Lake Ave., Govans; construct number of cottages; expend about \$150,000.

Md., Baltimore—M. Samuels Realty Corp., 719-25 W. Lombard St., capital \$100,000, inceptd. by Morton Samuels, Belle H. Samuels, Stanley K. Green.

Mo., Creighton—Creighton Jersey Co., capital \$15,000, inceptd. by J. W. Looney, G. M. Looney, Dan C. Crane.

Mo., Kansas City—Fisher Building Co., capital \$50,000, inceptd. by H. E. Fisher, L. G. Johnson, L. C. McDonnell.

Mo., Kansas City—A & R Realty Co., capital \$50,000, inceptd. by Omar Abernathy, J. A. Robertson, J. T. Harding.

Mo., Kansas City—Kansas City Properties Co., capital \$10,000, inceptd. by P. C. Clark, R. L. Knowles and P. M. Fogel.

Mo., Kansas City—Kaw Valley Realty Co., inceptd. by E. C. Vencill, N. Gallagher, M. O'Brien.

Mo., St. Louis—Revenue Realty Co., inceptd. by J. A. Pastel, Stanley Epstein, Marjorie Epstein.

Mo., St. Louis—Smallwood Realty Co., capital \$10,000, inceptd. by H. N. Eversole, H. L. Keller, A. F. Burt.

Mo., St. Louis—Boody-Goller Realty Co., inceptd. by B. H. Boody, O. N. Goller, Theodore Gemmer, Jr.

Mo., St. Louis—Forest Park Investment Co., capital \$150,000, inceptd. by Chris. Niehouse, F. J. Utley, H. Landgraf.

Mo., St. Louis—Oaklor Investment Co., capital \$20,000, inceptd. by J. W. Burian, E. M. Ganda, Frank Arnold.

Tenn., Nashville—R. M. Dudley, Chrmn. Board of Park Commrs., will expend about \$10,000 in development of nine hole golf link, and \$5000 for erection of bath house and rest room. (Lately noted acquiring 45 acres for park development.)

Tex., Robstown—S. Maston Nixon is developing Evergreen Place for residential section; will construct sidewalks, streets, parkway, etc.

Va., Norfolk—Globe Co., Inc., capital \$25,000, inceptd. with H. R. Furr, Prest.; H. F. B. Watts, Secy.

Va., Norfolk—Cradock Realty Corp., capital \$50,000, inceptd. with Fred M. Earle, Prest.; Lucy J. Earle, Secy.

Va., Richmond—Guarantee Realty Co., capital \$100,000, inceptd. with S. L. Hammerman, Prest., Equitable Bldg., Joseph Shick, Secy., both of Baltimore, Md.

Va., Suffolk—Home Builders' & Finance Corp., capital \$50,000, inceptd. with John T. Phillips, Prest.; H. E. Holland, Secy.

W. Va., Fairmont—Sterling Heights Co., capital \$125,000, inceptd. by O. S. McKinney, H. L. Heintzelman, C. E. Smith.

Lumber Manufacturing.

Ala., Jackson—Tombigbee Logging Co., capital \$25,000, inceptd. by J. M. and S. F. Hemphill, B. V. Canaan.

Ala., Jackson—J. M. Hemphill Lumber Co., capital \$50,000, inceptd. by J. M. and S. F. Hemphill, L. R. Stafford.

Ala., Selma—Central Alabama Lumber Co., Wm. R. Rouse, Mgr. has plant, daily output 50,000 to 60,000 ft. lumber. (Lately noted.)

Ark., Magnolia—T. S. Grayson, Prest. Farmers Bank and Trust Co. and associates will erect saw mill in Columbia County, build railroad from mill to the timber, through a tract of 2300 acres; has also acquired timber tract in Ouachita and Nevada Counties, will develop.

Fla., Lakeland—A. S. Mohr Lumber Co., A. S. Mohr, Prest.-Mgr. will erect 24x72-ft. and 24x100-ft. lumber sheds, wood frame corrugated iron covering. (Lately noted inceptd., capital \$10,000.)

Fla., Sopchoppy—Silver Lake Co., N. S. Townsend, Prest., has plant for mfre. of lumber. (Lately noted acquired 11,685 acres timber land.)

Ga., Culloden—M. V. Means Co., contemplates erecting additional planing mill.

Ky., Ashland—Kitchen Lumber Co., John W. Kitchens, Prest. has acquired W. H. Dawkins holdings in the Dawkins Lumber Co. consisting of 44,000 acres of timber land in Magoffin and Breathett counties, 8 ft. double band mill with daily capacity of 80,000 ft.; also purchased 42 mi. of standard gauge track and equipment of the Big Sandy & Kentucky R. R.; will develop.

Ky., Livermore—Atherton Lumber Co., (lately noted inceptd., capital \$20,000) organized with Noel A. Malin, Prest.-Mgr.; C. C.

Atherton, Secy.-Treas.; has plant; mfre. building materials.

Ky., Whitesburg—George Hogg Lumber Co., of Roxana, Ky., reported to purchase hardwood timber tract in Upper Rockhouse Creek section, plans installing saw mills, etc.

Miss., Walnut Grove—Paschal Lumber Co., (lately noted inceptd., capital \$50,000) organized with J. R. Buckwalter, Prest.; John J. Paschal, Secy.-Treas. and Mgr.; will erect mill construction building, open bids Mch. 1; install planing and saw mill; mchy. purchased.

Miss., Wiggins—Finkbine Lumber Trustees, W. E. Guild, Mgr., Jackson, Miss. will rebuild by own forces sawmill and auxiliary units of ordinary construction; cost \$300,000; install 2 double cutting band saws, \$200,000; purchased; daily capacity 125,000 ft. lumber and by products. Supersedes recent item. (Lately noted burned at loss of \$500,000.)

Miss., Yazoo City—Mutual Lumber & Coal Co., capital \$50,000, inceptd. with C. E. Chandler, Mgr.

N. C., Biltmore—Williams-Brownell Planing Mill, J. P. Hansen, Prest.-Gen. Mgr. will rebuild mill, estimated monthly capacity of 2,000,000 ft. (Lately noted burned, loss between \$85,000 and \$90,000.)

Tex., Harris Valley—Los Angeles Lumber Co., capital \$25,000, inceptd. by J. F. Schriever, L. W. Fuchs, R. G. Smith.

Va., St. Paul—Southern Lumber Co., capital \$50,000, inceptd. with C. L. Fletcher, Prest.; M. M. Long, Secy.

W. Va., Richwood—Eakin Lumber Co., of Weston, W. Va., acquired timber tract on Little Mountain, will develop.

Metal-Working Plants.

Fla., Miami—Huff Lock Switch Co., inceptd. with Williams H. Carter, Prest.; Thomas B. Norfleet, Secy.-Treas.

Md., Baltimore—Baltimore Gas Appliance Co., Wicomico and Bayard Sts., plans erecting three plant additions, 44.4x194-ft., 57.8x63-ft. and 25x63-ft. each, all brick construction; approx. cost \$48,000.

S. C., Sumter—American Headlight Dimming Co., inceptd. with L. D. Jennings, Prest.-Treas.; H. D. Moise, Secy.

Mining.

Ky., Ashland—Ashland Sand & Gravel Co., capital \$100,000, inceptd. by G. A. Northcutt, W. P. Wheeler and Judson C. McLester.

Md., Hagerstown—Tin—Eleanore Mining Co., Inc., 3 Hamilton Row, have begun development of tin ore lands, have installed mchy. excepting smelter equipment, blowers, etc. Previously noted inceptd., capital \$25,000. (See Mchy. Wanted—Smelter Equipment, etc.)

Mo., Kansas City—Sonora Leasing Co., capital \$15,000, inceptd. by R. W. Brown, G. E. Stewart, R. E. Letcher.

Mo., Webb City—Coyne Lead & Zinc Co., capital \$50,000, inceptd. by T. F. Coyne, W. M. Stewart and others.

Tex., Dallas—Incorporated Gravel Co., chartered by E. B. Cantrell, A. E. Doss, E. Corenbleth.

Miscellaneous Construction.

Fla., Jacksonville—Incinerator—City Comsn., St. Elmo W. Acosta, Chrmn., will erect garbage incinerator on Long Branch or Cemetery road; invite bids.

Fla., Miami—Canal, etc.—Everglades Co., Frank B. Shotts, Pres., acquired 20,000 acres land, will widen North New River Canal also

build road from Fort Lauderdale, approx. cost \$100,000. (Supersedes recent item.)

Md., Baltimore—Bulkhead—Public Improvement Comsn. authorized acceptance of joint bid of Sanford & Brooks Co., Commerce and Water Sts., and Arundel Corp., Pier 2, Pratt St., at \$304,000; for a fill to obtain satisfactory bottom at the point where bulkhead piles are to be driven for proposed McComas St. bulkhead; Bancroft Hill, Harbor Engr. (Bids lately noted.)

Miss., Clarksdale—For proposal details see Machy. Wanted—Levee Construction.

Mo., St. Louis—Elevator—Missouri Pacific R. R. Co., E. A. Hadley, 1055 Railway Exchange, will erect 2,000,000 bu. elevator, fireproof construction; open bids Mch. 2; Folwell-Ahlskog Co., Archt., Chicago, Ill. (Lately noted.)

Tenn., Chattanooga — Dam — Hamilton County Commrs., plans the construction of dam connecting the points of two hills at the confluence of Silver Creek with the Tennessee river, protecting Chattanooga region from the yearly deluge of backwater forced up the small streams by the Tennessee river during the rainy season; estimated cost \$20,000; E. G. Murrell, County Engr.

Tex., Galveston—Port Development — City Commrs. propose linking Galveston water front with Pelican island by ferry; contemplate \$250,000 bond issue.

Miscellaneous Enterprises.

Ala., Alton—Contracting—Riley-Wood Contracting Co., capital \$15,000, inceptd. by W. C. Riley and R. H. Wood, both Carrollton, Miss.; N. W. Newell, Birmingham, Ala.

Ala., Jefferson—Birmingham Printing Co., Inc., capital \$20,000, chartered by W. L. Trice, J. K. Kennedy, R. T. Anderson.

Ala., Tusculumbia—Printing — H. P. Hillhouse, Sheffield, Ala., has acquired plants of the Alabamian-Dispatch and the Russell Printing Co., will consolidate; contemplate installing additional equipment.

Fla., Eustis—Seminole Films, Inc., Edgar J. Banks, Prest.-Mgr. let contract to C. Z. Osborn, of Umatilla, Fla. to erect studio building on northern shore of Lake Grace. Spanish tupe, brick and stucco construction; a laboratory, printing and developing building, club house and film storage buildings will be built following the erection of studio. (Lately noted.)

Fla., Fort Myers—Fort Myers Steamship Co., (lately noted inceptd., capital \$100,000) organized with Harry Botts, Treas.-Mgr. will erect 50 x 100-ft. building, frame covered with corrugated galvanized iron. (See Mch. Wanted—Steamer (Freight and Passenger.)

Fla., Gainesville — Building Materials—Seola Co., capital \$20,000, inceptd. with B. F. Williamson, Prest.; E. S. Maddock, Secy.

Fla., Lake City—North Florida Dairy Co., E. B. Currier, Gen. Mgr.; consolidation of Oak Grove Dairy and the North Florida Dairy Co. will remodel plants, etc.

Fla., Pensacola—Bonded Warehouse Co., capital \$50,000, inceptd. with Frank E. Welles, Prest.; F. B. Smith, Secy.

Fla., Tallahassee — Southern Hotel & Amusement Co., capital \$50,000, inceptd. with Thomas H. Eddy, Prest.; Raymond B. Dennis, Secy.-Treas.

Fla., Tampa—Tampa Daily Times, let contract to B. F. Walker & Son to erect 2 story 100 x 90-ft. brick and stucco building at Franklin and Washington Sts., double size of present building; Fred J. James, Archt., Citizens Bank Bldg. (Lately noted.)

Ga., Gainesville—Printing—W. M. Brice acquired job printing shop, will remodel and install additional mchy.

Ky., Ashland — Cherry Construction Co., capital \$30,000, inceptd. by A. R. Cherry, A. W. Stevens and R. C. Brammer.

Ky., Louisville—Home Circle Publishing Co., increased capital to \$25,000.

La., Shreveport—Dairy—For full details see Land Developments.

Md., Baltimore—Diamond Taxi Cab Co., capital \$100,000, inceptd. with Frank M. Fisher, Prest., 3610 Elm Ave.

Md., Baltimore—Contracting—Ralph Milburn, Inc., 8 Light St., capital \$50,000, incorporated by Ralph Milburn, A. Gower Lawrence and Alfred J. O'Ferrall.

Mo., Kansas City—Rock Crushing—W. M. Spencer Co., capital \$500,000, inceptd. by W. M. Spencer, John M. Cleary and others.

Mo., Kansas City—Fairyland Amusement Co., capital \$500,000, inceptd. by M. H. Hudson, Jr., Herman Ritterhoff, F. H. Cromwell.

Mo., St. Louis—Franklin Amusement Co., capital \$60,000, inceptd. by Samuel Komm, David Baron, Ben Shifrin.

Mo., St. Louis—Longbeach Resort Co., capital \$50,000, inceptd. by Augustin J. Cicardi, C. W. LeGrave and W. H. Zeller.

Mo., St. Louis—Cascade Wet Wash Laundry Co. has purchased site on Ohio Ave. between Shenandoah Ave. and Victor St.; will erect laundry building.

Mo., St. Louis—Printing—C. F. Fechner Co., Inc., 102 N. 10th St., organized with Wm. J. Nagle, Prest.; F. W. Potthoff, Secretary; C. F. Fechner, Treas.; has plant and mchy. all installed for printing and lithographing. (Lately noted inceptd., capital \$1,000.

N. C., Asheville—Hatchery—Dula Springs Hatchery Co., organized by G. Latta Clement and Frank T. Leppert has plant with capacity of 3560 chicks every three weeks, 200x20-ft. brood house, plans install additional machine increasing capacity to 15,000 chicks, also building 5 laying houses 200 ft. long.

N. C., Raleigh—Raleigh Building Corp., capital \$230,000, chartered by R. S. Busbee, J. E. O'Donnell and A. L. Cox.

N. C., Rowland—Rowland Hotel Corp., capital \$50,000, chartered by W. H. McLellan, B. A. Edens and John W. Ward.

N. C., Siler City—Undertaking—P. H. Elkins, contemplates opening undertakers establishment. (See Machinery Wanted—Undertakers' Supplies.)

Tenn., Johnson City—Publishing—Johnson City Chronicle, Carroll E. King, V. P. and Mgr., let contract to George McClure to erect 160x25-ft. plant, fireproof construction; installed presses, tinotypes, etc., all purchased; increased capital to \$80,000; C. L. Marshall, Const. Engr.; Cleveland Coe, Archt.

Tenn., Nashville—Englert Engineering Co., increased capital to \$25,000.

Va., Christiansburg—Construction — Old Dominion Corp., capital \$100,000, inceptd. with M. C. Miller, Prest.; R. Floyd Smith, Secy.

Va., Lewisetta—Lewisetta Beach Co., capital \$50,000, inceptd. with A. B. Garner, Prest.; M. T. Garner, Secy.

Va., Lynchburg—Service Transfer Co., capital \$10,000, inceptd. with Harry A. Layne, Prest.; Wm. R. Anderson, Secy.

Va., Norfolk — Stevedores—Campbell-Hoffman Corp., capital \$20,000, inceptd. with John H. Campbell, Prest.; H. A. Lanlor, Secy.

Va., Portsmouth—Construction — Dismal Swamp Canal Route, Inc., chartered with V. Garland Weaver, Prest.; J. P. Jervy, Secy.

W. Va., Charleston—Monroe-Wetzel Dairy

Co., increased capital from \$10,000 to \$50,000.

W. Va., Charleston—Robinson-Smoother Advertising Co., capital \$25,000, inceptd. by R. Robinson, Austin V. Wood and Charles A. Smoot.

Miscellaneous Factories.

Ala., Birmingham—Alabama Hide & Tallow Co., 1608 Ninth Ave., North, Chas. Barber, Propr., will rebuild plant burned at loss of \$15,000.

Ala., Gadsden—United Overall Co., P. R. Jabuzan, Prest., purchased mchy. and will establish plant nr. city.

Fla., Clermont—For full details see Land Developments.

Fla., Jacksonville — Klinge Baking Co., capital \$10,000, inceptd. with O. H. Klinge, Prest.; W. F. Catling, Secy.-Treas.

Ala., Jefferson—Nugrape Bottling Co., capital \$75,000, inceptd. by Geo. P. K. and Theodore Papas.

Ala., Jefferson—White Swan Mattress Co., Inc., chartered by G. C. and A. B. Smith, W. H. Woolverton.

Ark., Camden—For full details see Ice and Cold Storage Plants.

Fla., Miami—Alaska Frozen Fruit Co., capital \$25,000, inceptd. with M. A. Ribaud, Prest.; Kenneth W. Pratt, Secy.-Treas.

Fla., Orlando—Drugs—Fountain of Youth Co., capital \$25,000, inceptd. with N. P. Yowell, Prest.; C. S. Rybolt, Secy.-Treas.

Fla., Tampa—Hava-Tampa Cigar Co. will construct addition to factory at Tenth and Twenty-first Sts.; 45 x 90 ft.; 4 stories; will increase production capacity to 1,000,000 cigars every 2½ days.

Ga., Atlanta—Marble—American Marble & Tile Co., capital \$100,000, organized with B. F. Coggins, Prest.; Canton, Ga.; G. B. Thomson, V.-P.-Gen. Mgr.; has plant at 28 Confederate Ave. and will install gang saws.

Ga., Buford—Bona Allen, Inc., are increasing tanning capacity by installing 200 tanning vats, reinforced concrete with coat of asphalt on inside for waterproofing is increasing power capacity by installation of three 250 H. P. Sterling boilers with extended Dutch ovens for burning waste tan bark; is installing 350 ft. of coal trestle, wooden bents, to parallel 14 ft. concrete retaining wall of cantilever type; Lockwood, Greene & Co., Engrs., Atlanta and Boston.

Ky., Pineville—American By-Products Coal Corp., capital \$150,000, inceptd. by J. Moss of Pineville, S. M. Loomis and Adolph Levy of Cincinnati, Ohio.

La., New Orleans—Caps, etc.—Jack Arnoff, Inc., capital \$40,000, organized with Jack Arnoff, Prest.; David H. Gross, Secy.-Treas.

Md., Baltimore—The Maryland Creamery Co., 1700 E. Pratt St., Jacob Abrams, Prest. let contract to H. Colton, 1738 E. Lombard St., to construct 15x35 ft. annex; fireproof, daily output 3500 gals. ice cream; will install two 1000 gal. cream vats and one 35 York Refrigerating machine; one 20 qt. ice cream machine; equipment purchased; have also leased building at 233-37 S. Register St., will improve for mfr. of ice cream cabinets and garage. (Lately noted.)

Miss., Waynesboro—Laurel Ice & Packing Co., Laurel, Miss. interested in establishing branch creamery.

Miss., Wyatte—Hataway Broom Co., inceptd. by Murphy Hataway and others will establish broom mfg. plant.

Mo., Chillicothe—Ice Cream — Stockton Dairy Co. will erect ice cream plant; contract

for mchy. let to Blanke Mfg. & Supply Co., St. Louis, Mo.

Mo., Jefferson City—S & S Hat Works, capital \$20,000, inceptd. by I. Seifer, Morris Sobel.

Mo., Moberly—Crozier-Straub Cinder Blocks Co. plan erecting plant.

Mo., St. Louis—Klenzo Chemical Mfg. Co., capital \$150,000, inceptd. by W. E. Peterso, G. W. Candle, B. S. Adams.

Mo., St. Louis—Missouri Glue Co., capital \$70,000, inceptd. by McCune Gill, Albert Goetz, T. J. Sheridan.

Mo., St. Louis—Interstate Electric Co., capital \$20,000, inceptd. by H. A. Dodson, F. C. Grindell, Charles Jehle, Jr.

Mo., Springfield—Springfield Electric Egg Candler Co., capital \$30,000, inceptd. by C. A. Tucker, O. E. Jennings, O. K. Armstrong.

N. C., Calypso—Patton Package Co., increased capital stock to \$150,000.

N. C., Elizabeth City—Ice Cream—Wine-cream Co., S. W. Wineke, Mgr., will construct ice cream plant with capacity 1200 gals. per day; cost about \$25,000.

N. C., Mocksville—J. A. Daniel will erect 3 story bakery; 22½ x 90 ft.; brick or tiling; basement for bakery, 2nd floor for theater; will open building proposals March 15; will install theater and bakery equipment. (See Mchy Wanted—Building Materials: Theater Equipment: Bakery Machinery.)

N. C., Winston Salem—Petty Smoot Co., capital \$100,000, inceptd. by Mary T. Petty Flora Matthews, John E. Smoot.

N. C. Winston Salem—Coca-Cola Carbonating Co., capital \$100,000, inceptd. by R. Frank Byerly, Thomas Pfaff, J. A. Conley.

Tenn., Memphis—Medicines — Furst & Thomas purchased building on Florida St., will mfr. medicines.

Tex., Texas City—Texas Sugar Refining Co., lately noted inceptd. with \$5,500,000 capital; Alexander Smith, Prest., will construct sugar refinery; first unit will have refining capacity of 1,000,000 lbs. per day; concrete; brick and steel; 8 stories with own dock and wharfage facilities; contract for all structural steel let to Ingalls Iron Works Co., Birmingham, Ala., contract involves boiler house, engine room, machine shop, pan house, packing house, filter house, office building, wash plant, refined sugar warehouse, raw sugar warehouse cooperage shop; Edward P. Eastwick, Jr., Engr., 342 Madison Ave., New York City, is designer of all bldgs., mchy. and equipment. (Lately noted.)

Va., Bristol—Overalls—Big Jack Overall Co., Inc., Lee, Sycamore and Water Sts. is improving plant and will install additional mchy.; will add about 3000 sq. ft. to present plant; install heating plant, elevators, automatic sprinkler system, etc.; will increase daily output to 500 doz. prs. overalls and jackets; mill construction, cost \$30,000 for construction and machinery; Arnold & Arnold, Contrs., Bristol. See Mchy. Wanted—Elevator (Freight); Boiler (Steam Heating.)

Va., Norfolk—D. Pender Grocery Co. will erect bakery at Twenty-fifth St. and Fawn Ave.; 100x125 ft.; 3 stories; brick and concrete; capacity of 200,000 loaves bread wkly.; cost \$100,000 to \$125,000.

Va., Richmond—James Robertson Mfg. Co., 1700 W. Main St. let contract to Davis Bros., 2510 W. Main St. for addition to factory; 80x60 ft.; 2 stories; ordinary flooring; concrete; slag roof; cost \$14,000; plans by owner.

Va., Salem—Medicines—Hancock Insoula-000, inceptd. with W. R. Brown, Prest.; Howard Corbin, Secy.

Va., Salem—Ideal Drug Co., capital \$10,

tum Co., capital \$100,000, inceptd. with M. G. McClung, Tom L. West, W. T. Younger.

W. Va., Weston—Lewis County Cut Glass Co., will construct glass plant.

Motor Cars, Garages, Tires, Etc.

Ala., Anniston—Automobile Accessories — Cato Tire & Rubber Co., capital \$10,000, incorporated by J. W. Cato and others.

Ala., Jefferson—Automobile Accessories — Alabama Dry Storage Battery Co., Inc., capital \$10,000, inceptd. Charles B. Taylor, U. L. James and others.

Fla., Jacksonville—Burwell Motor Co., Hogan St., let contract to A. L. Clayton to erect additional story to present plant; approx. cost \$10,000.

Fla., Orlando—Robertson-McKee Motor Co., capital \$100,000, inceptd. with H. C. Robertson, Prest.; Paul W. McKee, Secy.-Treas.

Fla., Panama City—Harrison-Padgett Motor Co., capital \$10,000, inceptd. with W. W. Padgett, Prest.; W. F. Harrison, Secy.-Treas., Gen. Mgr.

Fla., Tampa — Automobile Accessories—Williams & Hanson, Inc., capital \$40,000, chartered with L. V. Williams, Prest.; P. A. Dunnaway, Secy.

Ky., Hindman—Garage—Knott Motor Co., capital \$10,000, inceptd. by R. S. Stewart, of Whitesburg, Ky. and others.

Ky., Louisville—Bill's Auto Accessories Co., capital \$10,000, inceptd. with William Friedlander, Prest.; C. T. Dearing, Treas.

Miss., Brookhaven—Garage—M. W. Watkins will erect \$20,000 garage building, brick construction.

Miss., Hattiesburg—Automobiles — United Sales & Investment Co., capital \$25,000, inceptd. by O. F. Kimmons, W. H. Fagan and J. C. Low.

Miss., Wyatte—Garage, etc. — Freeman & Son, have under construction garage and repair shop.

Mo., Kansas City—Service Sales Co., Inc., capital \$10,000 inceptd. by Lewis T. Breck, C. L. Hugin, R. K. Ryland.

Mo., Kirksville—Automobile Accessories—Richardson Oil & Mercantile Co., capital \$25,000, inceptd. by W. J. Richardson, C. J. Baxter and H. M. Still.

Mo., St. Louis—Automobile Accessories—Bosch Electric & Battery Service Co., capital \$25,000, inceptd. by H. E. Bishop, A. R. Seibert and G. Leigh Whetton.

N. C., Charlotte—Bradshaw Auto Service Inc., 320 S. Church St., has 60 x 260 ft. building for automobile storage and service station. (Lately noted inceptd. capital \$25,000.)

N. C., Charlotte—Filling Station—W. A. Stroupe & Co., will occupy building to be erected on N. Graham St., concrete construction with drive-in filling station in front, will install 4 gasoline pumps, etc.

N. C., Hickory—Harper-Phillips Motor Co., capital \$100,000, inceptd. by F. G. Harper, T. J. and B. M. Phillips.

N. C., High Point—Automobile Supplies—Ki-Bo-Mil Supply Co., capital \$100,000, incorporated by F. P. Kiser, C. R. Bowman and C. E. Miller.

Okl., Oklahoma City—C. E. Huffman has permit to erect \$15,000 garage, 26 W. 10th St. (See Buildings Proposed—Dwellings.)

S. C., Greenville—Carolina Marmon Co., Inc., 328 N. Main St., capital \$50,000, chartered with W. S. Griffin, Prest.-Treas.; J. C. Harper, Secy.-Mgr.

S. C., Hemingway—Haselden Motor Co., incorporated with S. J. Haselden, Prest.-Secy. and Treas.

S. C., Rock Hill—Sadler-Neely Motor Co., capital \$10,000, inceptd. with J. T. Neely, Prest.-Treas.; D. H. Sadler, Secy.

Tenn., Knoxville—Tires, etc. — Knoxville Rubber Co., W. M. Simpson, Propr., E. Jackson St., has building for mfr. of automobile tires. (See Machinery Wanted—Automobile Tire Making Mchy. and Materials.)

Tenn., Nashville—Johnson Motor Co., incorporated by A. W. and C. A. Johnson, Dana W. Bell.

Tex., El Paso—Central Storage Garage, incorporated by Neil Lyons, E. E. Sternglanz, A. P. Mottelson.

Tex., Houston—Garage, etc.—T. S. Tallafarro, 2217 Odin Ave. will erect blacksmith shop and garage.

Tex., Houston—Stadtler Auto Supply Co., Inc., capital \$110,000, chartered by R. C. H. and John Stadtler, L. T. Coalson.

Va., Galax — Automobile Accessories — Harp Half Minute Demountable Rim Co., capital \$250,000, inceptd. with Wm. I. Harp, Prest.; Claude M. Gardner, Secy.

Va., Richmond—Kirkmyer Motor Co., capital \$200,000, inceptd. with G. C. Kirkmyer, Prest.; E. D. Waggstaff, Secy.

Railways.

Ark., Magnolia—T. S. Grayson and S. T. McAnulty, of Magnolia, will it is reported build a railroad from a connection with the St. Louis Southwestern Railway between McNeil and Stephens, to develop a large tract of timber.

Fla., Orlando—Canaveral, Orlando & Southwestern Railroad Co., chartered to build a line connecting Orlando, Sanford, Groveland, Haines City, Sebring, Lakeland and Plant City, to begin construction in 90 days, according to statement credited to J. F. Ange, of Orlando, president of the company.

W. Va., Charleston—Charleston Interurban Railroad Co., F. M. Staunton, Vice President, contemplates building an extension from Dunbar to Nitro, W. Va., 8½ mi.

Railway Shops, Terminals, Round-houses, Etc.

Mo., St. Louis—St. Louis—San Francisco Ry. Co., F. C. Jonah, Chief Engr. has begun preliminary work on the erection of shops located between present tracks and river Des Peres, which will double the facilities for the repair of equipment; fireproof construction; plant will provide a terminal for freight locomotives and cars which are now repaired at the Chouteau Ave. shops, approx. cost \$700,000; will install equipment costing \$200,000; work of grading the site has begun.

Road and Street Construction.

Alabama—State Highway Commn., Montgomery, Ala., let contracts for 47 mi. of roads and 2 bridges as follows: to Stanley & Dinger Construction Co., Lafayette, at \$114,420 to construct 20.04 mi. sand clay road in Crenshaw County also at \$41,395 for bridge on same road; Dale County Proj., was awarded for \$52,700 to construct 7 mi. sand clay roads from Houston County line; to G. C. Goodrich, Albany, Ala., at \$200,215 to grade, drain and surface with chert 20.164 mi. road between Centerville and Woodstock, Bibb County Proj. 120. (Lately noted.)

Ala., Albany—City will complete street paving system; will issue \$125,000 bonds. Address The Mayor.

Ala., Anniston—For full details see Land Development.

Ala., Centerville—State Highway Commn., Montgomery, Ala., let contract at \$41,690 to E. L. Batson, Birmingham, for bridge near

Woodstock, F. A. Proj. 120, Bibb County. (Lately noted.)

Ala., Centerville—State Highway Comsn., Montgomery, Ala., let contract to G. C. Goodrich, Albany, Ala., at \$200,215.33 to grade, drain and surface with chert, 20.164 mi. road between Centerville and Woodstock; Bibb County Proj. 120. (Lately noted.)

Ala., Luverne—State Highway Dept., Montgomery, Ala. let contract to Stanley & Singer of Lafayette, at \$114,000 for 20 mi. Crenshaw road, and at \$41,000 for bridge work. (Lately noted.)

Fla., Clermont—For full details see Land Developments.

Fla., Cresview—Okaloosa County Comms. and Forestry Dept. to build 11.6 mi. clay surface road between Mossy Head and Niceville; financed by Federal Highway; work under Forest service supervision, W. F. Nill, Supt., Pensacola, Fla.

Fla., Jacksonville—Duval County Comms. Frank Brown, Clk., let contract to J. W. Wilson Co. to widen and repair St. Johns Ave. from Forest to Hendrick Ave. (Bids lately noted.)

Fla., Miami—For full details see Miscellaneous Construction.

Fla., Miami—Frank H. Wharton, City Mgr., plans repaving N. E. 2nd Ave. from 12th St. to north city limits, N. Miami Ave. from 14th St. north to city limits, and W. Flagler St. from bridge to west city limits; asphalt on concrete base.

Fla., Punta Gorda—Charlotte County Comms., will build portion of state Road No. 5, completing Tamiami trail; voted \$200,000 bonds.

Ga., Augusta—For proposal details see Mch. Wanted—Paving.

Ga., Columbus—For full details see Land Developments.

Ky., Earlington—City let contract at \$100,000 to improve principal streets including route of Dixie Bee Line and Federal Aid Highway to Dawson Springs, about 2 mi. Address The Mayor.

Ky., Madisonville—State Highway Comsn., Louisville, Ky., plans building road from Dawson Springs to Earlington, to connect with Dixie Bee line at Earlington, let contract about June 1.

Md., Baltimore—For proposal details see Mch. Wanted—Paving.

Miss., Corinth—For full details see Water Works.

Missouri—State Highway Dept., Jefferson City, Mo., let contracts for 23 sections of road as follows: Caldwell County, 4.904 mi. 18 ft. concrete or asphalt concrete on road from Hamilton West, Rt. 8, Sec. 13, to Highway Construction Co., Tulsa, Okla., at \$231,761.88; Caldwell County, 4.964 mi. 18 ft. concrete or asphalt concrete on state road from Hamilton West, Rt. 8, Sec. 12, to Highway Construction Co., Tulsa, Okla., at \$224,481.84; Jackson County, 4.109 mi. 18 ft. concrete brick, rock asphalt or asphalt concrete on state road, Kansas City, east on Sni-a-bar road, Rt. 2, Sec. 3, to W. A. Ross, Kansas City, Mo., at \$152,783.00; Jackson County, 4.345 mi. 18 ft. concrete brick, rock asphalt or asphalt concrete on state road, Kansas City, east on Sni-a-bar road, Rt. 2, Sec. 4, to W. A. Ross, Kansas City, Mo., at \$231,266.93; Jackson County, 4.942 mi. 18 ft. concrete brick, rock asphalt or asphalt concrete on state road, Kansas City, east on Sni-a-bar road, Rt. 2, Sec. 5, to W. A. Ross, Kansas City, Mo., at \$171,303.88; Jackson County, 4.974 mi. 18 ft. concrete brick, rock asphalt, or asphalt concrete on state road, Kansas City, east on Sni-a-bar, Rt. 2, Sec. 6,

to W. A. Ross, Kansas City, Mo., at \$235,311.08; Jasper County, 4.794 mi. 34 ft. on state Highway Blvd., Rt. 14, Sec. 3, to Carterville Construction Co., Carterville, Mo., at \$26,885.94; Laclede County, 0.568 mi. 34 ft. road northwest of Lebanon, Rt. 14, Sec. 36, to General Construction Co. of St. Louis, at \$21,326.33; Lafayette Co., 3.379 mi. 34 ft. road, west of Odessa, Rt. 2, Sec. 8, to Tibbets Construction Co., Independence, Mo., at \$36,037.62; Lawrence County, 4.962 mi., 34 ft. state road, Jasper County Line east, Rt. 14, Sec. 5, to Carterville Construction Co., Carterville, Mo., at \$19,630.24; Lawrence County, 4.986 mi. 34 ft. state road, Jasper County line east, Rt. 14, Sec. 6, to Carterville Construction Co., Carterville, Mo., at \$33,927.46; Lawrence County, 4.938 mi., 34 ft. state road, Jasper County line east, Rt. 14, Sec. 7, to Carterville Construction Co., Carterville, Mo., at \$49,561.19; Lawrence County 2.897 mi. 34 ft. state road, Jasper County line east, Rt. 14, Sec. 8, to Carterville Construction Co., Carterville, Mo., at \$23,256.45; Phelps County, 3.707 mi., 12 ft. gravel state road, south of Rolla, Rt. 7, Sec. 65, to M. E. Gillioz, Monett, Mo., at \$24,882.55; Pulaski County, 3.030 mi. 34 ft. state road, Laclede County line east, Rt. 14, Sec. 39, to Sam T. Rollins, Watnesville, Mo., at \$9366.61; Pulaski County, 2.789 mi., 34 ft. state road, Laclede County line east, Rt. 14, Sec. 40, to Sam T. Rollins, Waynesville, Mo., at \$10,342.57; Pulaski County, 1.259 mi., 34 ft. state road, Waynesville southwest, Rt. 14, Sec. 42, to Koss Construction Co., Des Moines, Ia., at \$68,723.54; St. Louis County, 2.244 mi., 18 ft. concrete brick rock asphalt on state road west of Manchester, Rt. 14, Sec. 76, to Ernest Berns Co., Indianapolis, Indiana, at \$316,623.12; St. Louis County, 4.943 mi., 18 ft. concrete brick surface state road west of Manchester, Rt. 14, Sec. 77, to Ernest Berns Co., Indianapolis, Indiana; Taney County, 3.833 mi., 12 ft. gravel surface state road south of Forsyth, Rt. 78, Sec. 3, to J. E. Hartley, Mt. Vernon, Mo., at \$16,749.65; Taney County, 3.238 mi., 12 ft. gravel road, Stone Co. line, south, Rt. 3, Sec. 113, to Cox & Chaney, Branson, Mo., at \$19,686.47; Taney County, 3.087 mi., 12 ft. gravel state road, Stone County line south, Rt. 3, Sec. 112, to E. A. Luck, Black, Ark., at \$19,043.31; Scott County, 0.920 mi., 16 ft. Gravel state road north of Diehstadt, Rt. 55, Sec. 6, to G. E. Stoner, Charleston, Mo., at \$45,788.01.

Mo., Branson—Cox & Chaney awarded contract to build 3 mi. section of Springfield-Branson highway, 20 ft. roadway with 12 ft. gravel pavement; cost \$17,896.

Mo., Carthage—City will pave two sections of Lyons St., one section each of Second, Fifth and Sixth Sts., all concrete construction; approx. cost \$27,000. Address The Mayor.

Mo., Cassville—Barry County Comms. will construct 4.2 mi. road between Monett and Cassville. State Proj. Route 37. Section 2, gravel surface; invite bids; Ray Dunlap, Div. Engr. State Highway Comsn.

Mo., Jefferson City—City plans improving 50 blocks of streets; also improve St. Mary's Blvd., between Bolivar and Michigan Sts.; etc. Address The Mayor.

Mo., Macon—Macon County Comms. contemplates improving highways; will create special road district.

Mo., Maysville—City will pave and curb Water St., will soon award contract. Address The Mayor.

Mo., Poplar Bluff—P. T. Sigler, Mayor, plans receiving bids in March or April to pave with concrete, 3 mi. of streets; F. H. Williams, Chmn. of Street Comm. (Lately noted.)

N. C., Burlington—For proposal details see Mch. Wanted—Paving.

N. C., Danbury—Stokes County Comms. let contract to Cornatzer Bros., for 3 mi. soil road in Peters Creek Township, from Buck Island Bridge on Dan River to Jewel Place. (Lately noted.)

N. C. Greensboro—For proposal details see Machinery Wanted—Paving.

N. C. Lincolnton—Lincoln County Comms. will improve road, voted \$500,000 bonds. (Lately noted.)

N. C. Lexington—For full details see Water Works.

N. C.—Whiteville State Highway Dept., Raleigh, N. C., will let contract soon for 13 mi. road from point near Delco, Columbus County, to Bolton.

Oklahoma—State Highway Comsn., Paul Nesbitt, Commr., plans improving 4 sections of roads in Stephens County, as follows: Hard surfacing Meridian Highway, north and south across County, through Comanche, Duncan and Marlow; hard surfacing Ozark Trail, east and west across County, connecting oil fields; grading and graveling Lee and Bankhead Highways, east and west; let contract to M. A. Swatek & Co., Oklahoma City, at \$196,114, for 6 mi. concrete road in Kay County, between Ponca City and Newkirk, to T. C. Ottinger, Hinton, Okla., at \$83,842 for 7 mi. gravel road in Le Flore County, between Poteau and Wister; also plans gravel road in Murray County, between Davis and Sulphur; will receive bids soon for 2 roads as follows: Johnston County, gravel road from Tishomingo to Carter County line; Pittsburg County, 18-mi. road; plans paving road in Washington County from Kansas border to Tulsa County line.

Okla., Miami—Ottawa County Comms. plan building extension to hard surfaced highway from Miami to Afton; \$27,500 appropriation.

S. C., York—York County plans building roads; contemplates issuing \$2,000,000 bonds. Address County Comms.

Tenn., Greeneville—State Highway Dept., Nashville, Tenn. let contract to J. E. French, Greeneville, to construct 2.64 mi. of water bound macadam road on reconstructed base course in Greene County from Nolichucky River to Caney Branch; work includes grading, surfacing and drainage structures; costing \$29,249; D. Q. McComb, Ch. Engr., Nashville.

Tenn., Knoxville—Knox County will expend \$50,000 to build 1.82 mi. Central Ave. Pike in County; sheet asphalt (Willite Method) macadam base; construction by County forces under supervision of J. W. Spradlin, Supt. of Roads. (Lately noted.)

Tex., Angleton—Bureau of Public Roads, Fort Worth, Tex., recommends approval of building 13.8 mi. shell road on State Highways Nos. 19 and 19-A, Brazoria County; estimated cost \$155,917, Federal Aid allotment being \$25,000.

Tex., Benjamin—Bureau of Public Roads, Fort Worth, Tex., approved building 4.1 mi. gravel road on the Benjamin-Sagerton road, Knox County, State Highway No. 28; estimated cost \$122,170 with \$11,045 Federal Aid.

Tex., Cameron—Milan County, Jeff T. Kemp, Judge, plans construction of road in Dist. No. 26; has \$22,000 available; A. F. Mitchell, County Engr.

Tex., Corsicana—Navarro County Comms. will surface 7.71 mi. of State Highway No. 31 through Richland Creek Bottom, Road Dist., No. 13, water bound macadam, invite bids. (Lately noted.)

Tex., Dallas—Bureau of Public Roads.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Washington, D. C., approved plans for construction of 14.1 mi. bituminous and gravel paving on State Highway, No. 6, Dallas County, between Oak Cliff and Ellis County line; Fed. Aid Proj. No. 288; estimated cost \$574,060; Nagle-Witt-Rollins Engineering Co., Dist. Engr.

Tex., Del Rio—Val Verde County, R. T. Hunnicut, Judge, let contract for grading and surfacing with gravel 11.82 mi. State Highway, No. 12 between Del Rio and Comstock; \$35,475.88; G. M. Jowers, County Engr. (Bids lately noted.)

Tex., Denton—City let contract to W. M. Jagoe Co. at \$55,740 to construct more than mile of paving on West Oak St., crushed stone macadam with 2-in. rock, asphalt surfacing. (Lately noted.)

Tex., El Dorado—For proposal details see Mch. Wanted—Road and Bridges Construction.

Tex., Georgetown—Williamson County, H. A. Hodges, Auditor will construct section Georgetown-Travis County line road beginning at city limits extending to beginning of city paving; invite bids.

Tex., Georgetown—Williamson County, F. D. Love, Judge, will improve Georgetown-Jarrell Road from end of city paving on Brushy St. to San Gabriel River bridge; invite bids; R. A. Nichols, County Engr.

Tex., Henrietta—Clay County, J. F. Vaden, Judge, will construct 36 mi. concrete road from Bellevue to Wichita County line; contemplate voting March 20 on \$550,000 bonds.

Tex., Highland Park—City, H. H. Davis, Mayor, contemplates paving portions of following streets, Shenandoah Ave., Potomac Ave., Normandy Ave., Fairfield Ave., Hughes Ave.

Tex., Jourdan—Bureau of Public Roads, Washington, D. C., approved plans for construction of 1.7 mi. bituminous road on Meridian Highway through Atascosa County, Fed. Aid Proj. No. 332; estimated cost \$26,149.96; W. E. Simpson, County Engr., National Bank of Commerce Bldg., San Antonio, Texas.

Tex., Marlin—Falls County Commrs., W. S. Hunnicut, Judge, will construct roads in Road Dist., No. 4; voted \$60,000 bonds; also construct roads in Rosebud Dist., No. 3, voted \$100,000 bonds; J. P. Wehring, County Engr., Chilton, Tex.

Tex., Nacogdoches—City plans repaving business district as first step in paving program; approx. cost \$500,000. Address The Mayor.

Tex., Newton—Bureau of Public Works, Washington, D. C., approved construction of 20.5 mi. gravel road on Jasper-Newton-Louisiana Highway through Newton County, Fed. Aid Proj. No. 339; estimated cost \$230,005.60; B. O. Ellis, County Engr.

Tex., Robstown—For full details see Land Developments.

Tex., Sinton—San Patricio County, J. C. Houts, Judge, will construct 8.58 mi. State Highway, No. 12, extending from Gregory to Aransas Pass to Rockport; Fred M. Percival, County Engr., Rockport, Tex.

Tex., Waco—Bureau of Public Roads, Fort Worth, Tex. approved plans for construction 3.7 gravel bituminous road on Waco-McGregor Road from McGregor, East; Fed. Aid Proj. 223, estimated cost, \$32,075; Martin Hanna, County Engr., Waco.

Tex., Wichita Falls—For proposal details see Mch. Wanted—Paving.

Va., Fredericksburg—For full details see Bridges, Culverts, Viaducts.

Va., Graham—City will reconstruct street and sidewalks improvements; voted \$37,500. Address The Mayor. (Lately noted.)

Va., Hampton — Elizabeth City County Road Corp., capital \$10,000, ineptd. with F. W. Darling, Prest.; L. M. Von Schilling, Secy.

Va., Pennington Gap—Town plans repairing main street through town, connecting with Jonesville Big Stone Gap section of State Highway through Lee County. Address The Mayor.

Va., Portsmouth — Dismal Swamp Canal Bank Route, Inc., capital \$29,000, chartered by V. Carland Weaver, Prest.; James P. Jervey, Secy.

Va., Quantico—For proposal details See Mch. Wanted—Hangars, etc.

Va., Richmond—State Highway Commn., opened bids for highway contracts, following were lowest bidders: to S. R. Allport Construction Co., Richmond, at \$300,419.19 for Franklin to North Carolina work; Henry W. Roberts Co., Clara, Md. on Tasley Proj., 6 mi. south; Southern Construction Co., Petersburg, Clarksburg road to North Carolina line; Davis Carson Co., Cumberland, Va., Big Island road to Snowden Proj.; Harrison Engineering & Construction Co., Buffalo, N. Y. Tasley on Onancock Proj. (Lately noted.)

Va., Richmond—State Highway Commn., for Proposal details see Mch. Wanted—Road and Bridge Construction.

Va., Suffolk—State Highway Comsn., For proposal details see Mch. Wanted—Road Construction.

W. Va., Clarksburg—Harrison County, Elk Dist., plans building roads; contemplates issuing \$120,000 bonds. Address County Commrs.

W. Va., Fairmont—Marion County, Winfield Dist. plans building Morgantown pike between Fairmont and Morgantown through district; will vote March 17 on \$200,000 bonds; Frank J. Wilfong, County Road Engr. (Lately noted.)

W. Va., Fayetteville—Fayette County, plans building roads; contemplates voting on \$400,000 bonds; Quinimont Dist. plans building roads; contemplates voting on \$100,000 bonds. Address County Commrs.

W. Va., Logan—Logan County plans building roads; contemplates voting on \$500,000 bonds. Address County Commrs.

W. Va., Philippi—Barbour County, Cove Dist., plans building roads; contemplates issuing \$100,000 bonds. Address County Commrs.

W. Va., Pineville—Wyoming County, Huff Creek Dist., plans building 9 mi. road; contemplates voting on \$50,000 bonds. Address County Commrs.

W. Va., Wheeling—City will pave Market St. from St. to Creek, Main St. from 12th to 27th; invites bids. Address Chas. H. Dowler, City Mgr.

W. Va., Williamson—Mingo County, 2 districts, plans building roads; contemplates issuing \$240,000 bonds. Address County Commrs.

Sewer Construction.

Ala., Anniston—For full details see Land Developments.

Ark., Forest City—Forest City Special Improvement Dist., Louis McDaniel, Chrmn. Comm. contemplates voting on \$115,000 bonds, \$40,000 to be used in retiring indebtedness, remainder for extension to existing sewer system and disposal plant, building power house and purchasing additional generating and pumping equipment; Fred J. Herring, Engr.

Fla., Clermont—For full details see Land Developments.

Ga., Columbus—For full details see Land Developments.

Mo., Harrisonville—For proposal details see Mch. Wanted—Sewer Construction.

Mo., Lathrop—For full details see Water Works.

Mo., Neosho—City will open bids Feb. 27 for construction of system of sanitary sewers; lately noted voting \$65,000 bonds, A. F. Cloud, City Clk.

N. C. Lexington—For full details see Water Works.

Tex., Caldwell—City will vote March 2 on installation of sewerage system. Address The Mayor.

Tex., Cameron—For proposal details see Machinery Wanted—Sewer Construction.

Tex., Greenville—For full details see Water Works.

W. Va., Charleston—For proposal details see Mch. Wanted—Sewer Construction.

W. Va., Clarksburg—City will construct number of sewers; will open bids in March. Address The Mayor.

Telephone Systems.

Mo., St. Louis—Southwestern Bell Telephone Co., reported to expend approx. \$2,000,000 in building plant for merging of the Bell and Kinloch systems; plans call for completion of work by Jan. 1, 1925.

N. C., Salisbury—Southern Bell Telephone & Telegraph Co., main office, Atlanta, Ga., will expend \$60,000 on placing wires underground in business section.

Tex., West—Texas Telephone Co., plans erecting telephone exchange building on West Oak St.; acquired site.

Textile Mills.

N. C., Asheville—Asheville Cotton Mills, will expend \$5000 in improvements to plant.

N. C., Concord—Gibson Mfg. Co. have let contract to Lockwood, Greene & Co., (Charlotte office) for designing large addition to mill for finishing department; will also install additional power facilities.

N. C., Gastonia—Dixon Mills, J. K. Dixon, Secy. will not at this time install additional 4000 spindles as lately reported.

N. C., Kernersville—Vance Knitting Co., is enlarging plant; construct new building approx. 50x100 ft.; 2 stories; ultimate capacity 500 doz. hose; construct boiler house and dye plant; J. E. Sirrine & Co., Engrs., Greenville, S. C.

N. C., Reidsville—Cartex Underwear Co., capital \$500,000, organized with Wm. H. Carter, Prest., Needham Heights, Mass.; R. C. Graham, Secy.; has building and will establish plant with 1000 doz. men's union suits wkly. (Lately noted.)

N. C., Worthville—Riverside Mfg. Co., let contract to Lockwood, Greene & Co., (Charlotte, N. C. office), for improvements and addition to plant to accommodate 5000 additional spindles and 150 additional looms.

N. C., Waco—D. Poley Rhodes of Lincoln, and associates interested in erection of 5000 spindle yarn mill; cost \$250,000.

S. C., Fountain Inn—A. R. Meadows and associates interested in establishing cotton mill.

S. C., Greenville—Duncan Mills, will build twister building; reinforced concrete; 2 stories; 133x185 ft.; will install 8056 new and 2305 old twistlers on second floor; first floor will contain spoolers and winders; J. E. Sirrine & Co., Engrs., Greenville, S. C.

S. C., Greer—Victor Monaghan Co., Victor plant will build addition to bldg. 71x79 ft.; 4 stories; will add about 120 looms, spooling, warping and slashing; rearrange mch. in Mills No. 1 and 2, motor drives; J. E. Sirrine & Co., Engrs., Greenville, S. C.

Tex., Dallas—J. Perry Burrus of Dallas, is president of company organized with \$1,000,000 capital to construct cotton mill with 12,500 spindles; M. L. Cannon of Concord, N. C. and L. W. Roberts of Atlanta, Ga., associated.

Tex., Haskell—Chamber of Commerce interested in establishment of cotton mill. See Mch. Wanted—Textile Mill.)

Water Works.

Ala., Albertville—Alabama Water Co., has acquired municipal water and electric plants will improve and begin operations about March 1.

Ala., Anniston—For full details see Land Developments.

Ark., Fort Smith—City, let contract to W. Kiersted of Kansas City, Mo. at \$12,500 for engineering work in improvements to water works system, including construction of Crow's Hill reservoir. (Lately noted).

Fla., Clermont—For full details see Land Developments.

Fla., Tampa—For proposal details see Mch. Wanted—Reservoir.

Fla., Wauchula—City will improve water works system, let contract to M. Wheeler and Roy Burnett for constructing reservoir in city park with capacity of 200,000 gals. water; install 2 motor driven pumps, with 200,000 gal. and 300,000 gal. capacity per minute.

Ga., Columbus—For full details see Land Developments.

La., Rayne—For proposal details see Mch. Wanted—Water and Electric Light Plant Improvements.

La., Shreveport—For full details see Land Developments.

Md., Frederick—City will construct storage reservoir at Fishing Creek receiver with capacity of 50,000,000 gals; will probably issue \$60,000 bonds. Address The Mayor.

Miss., Corinth—City will expend about \$200,000 during year for water works, electric light plant and street work. Address The Mayor.

Mo., Lathrop—City will construct water works and main sewers and disposal plant; will vote March 20 on \$60,000 water works bonds and \$22,000 sewer bonds. Address The Mayor.

Mo., Mexico—City will extend water works system, construct viaduct at Washington St. and other improvements; will probably vote on bonds. Address The Mayor.

Mo., Piedmont—City will probably vote on \$15,000 bonds for water plant. Address The Mayor.

N. C., Charlotte—City, W. E. Vest, Supt., Water Dept. let the contracts for the following water works material: to Grinnell Co. for supplying 55,000 ft. of Byers genuine wrought iron pipe at \$6739.50; to Charlotte Supply Co. to furnish 1600 galvanized nipples; contract for 2100 units of brass and lead goods for use in service connections let to H. Mueller Mfg. Co., Decatur, Ill. and to United Brass Mfg. Co., Cleveland, Ohio; contract for 4350 malleable pipe fittings not let. (Lately noted.)

N. C., Charlotte—City let contract at \$43,605 to Lynchburg Foundry Co., Lynchburg, Va. for furnishing 47,000 ft. of cast iron pipe and fittings for extension of water works system.

N. C., Charlotte—City let contract to Tucker & Laxton, for erection of 3 buildings for filter plant on Beatty's Ford road in connection with water works system now under construction; concrete; 123x35 ft., 172x175 ft.

115x30 ft.; cost \$50,000; plans by W. M. Platt, Durham. (Lately noted.)

N. C., Greensboro—City, P. C. Painter, Mgr. let following contracts for city water system; for curbs and corporation cocks to United Brass Mfg. Co., Cleveland, Ohio, at \$5,790; for cuts in tees and valves to A. P. Smith Mfg. Co., East Orange, N. J.; for cast iron pipe and fittings to Glamorgan Pipe and Foundry Co., Lynchburg, Va.; for hydrants to R. D. Wood & Co., Phila., Pa. (Lately noted).

N. C., Lenoir—For proposal details see Mch. Wanted—Water Works Improvements.

N. C., Lexington—City, Paul R. Raper, Clk. plans issuing \$125,000 water bonds; \$75,000 sidewalk, curb and gutter bonds; \$25,000 sewer bonds.

N. C., North Wilkesboro—For proposal details see Mch. Wanted—Water Main Extension.

N. C., Roxboro—For proposal details see Mch. Wanted—Water Works Improvements.

Okla., Morris—City let contract to Sherman Mch. & Iron Works, Oklahoma City, Okla., for extension of water works system; cost \$50,000; will construct 1,500,000 gal. plant, 50x100 ft.; install 150 G. P. M. motor (gas) centrifugal, one 400 G. P. M. motor driven centrifugal; construct approx. 10,000,000 gal. reservoir, cost \$30,000; H. G. Obenstead, Engr., Oklahoma City.

Tex., Greenville—City will vote March 19 on \$65,000 water bonds and \$20,000 sewer bonds. Address The Mayor.

Tex., Hamilton—City let contract at \$90,000 for construction of dam across Two-Mile Creek to impound 500,000,000 gals. to supplement water supply. (Lately noted.)

Tex., Howe—City will vote on bonds for construction of water works plant. Address The Mayor.

Tex., Rule—City voted \$54,000 bonds for installation of water works system. Address The Mayor.

Tex., Shamrock—For proposal details see Mch. Wanted—Water Supply and Distribution System.

W. Va., Keyser—City voted \$75,000 water works bonds. Address the Mayor.

W. Va., Morgantown—West Virginia Utilities Co., J. K. Buchanan, Mgr. will improve water system.

Woodworking Plant.

Ky., Henderson—Anderson Box & Basket Co., Box 28, Gibney Oscar Letcher, Mgr. purchased 178x115-ft. plant, brick construction; installed planers, cut-off and rig saws, etc., all purchased; mfr. returnable shipping boxes, floor trucks, etc.

Ky., Monticello—Bourbon Stave Co., inceptd. by I. D. Thompson, Sr., I. D. Thompson, Jr., L. S. Heimble.

Mo., St. Louis—South End Sash & Door Co., capital \$25,000, inceptd. by G. C. Reed, Leonard Hesser, O. A. Barth.

Mo., St. Louis—Murmman Phonograph Co., capital \$25,000, inceptd. by H. P. and Peter Murmann, Geo. W. Lubke, Jr.

Tenn., Chattanooga—Cedar Chests—Acme Mfg. Co., R. S. Black, Gen. Mgr., 28th and East Lake, contemplates building plant addition to double its capacity, improvement includes necessary dry kilns, sawmill and finishing equipment; later plans erecting assembling plant; mfr. of knocked down cedar chests.

Tenn., Memphis—Trucks—America's Best Trailer Truck Co., Inc., capital \$1,000,000, chartered with Joseph Newberger, Prest.; Charles S. Drane, Secy.-Treas.; T. M. White,

Gen. Mgr.; has purchased building, convert into factory for mfr. of trailer trucks; estimated annual output 3000.

Tex., Orange—Orange Furniture Co., capital \$50,000, inceptd. with Howard L. Cohenour, Prest.; Cliff Douglas, Secy.-Treas. and Gen. Mgr.

Tex., San Antonio—San Antonio Body Factory, capital \$25,000, inceptd. by W. W. Braswell, J. D. Moore, John Rucek.

FIRE DAMAGE

Ala., Birmingham—B. J. Edelen's residence, 1310 Cotton Ave., West End; loss \$8000.

Ala., Birmingham—Alabama Hide & Tallow Co.'s plant, loss \$15,000.

Ark., Batesville—G. W. Rogers residence; loss \$10,000.

Ark., Harrison—Connelley Hotel owned by W. M. Connelley; loss \$10,000.

Ark., Jonesboro—Residences of Albert Bauer, Mrs. Anne Forgey, Roy Gooch and John W. McColgan; loss \$20,000.

Fla., Pensacola—Naval Stores & Warehouse Co.'s sheds, etc., at Gouddings; loss \$300,000.

Fla., Quincy—R. E. Blitch's warehouse; loss \$25,000.

Ga., Atlanta—Dixie Dry Goods Co.'s building at Pryor and Decatur Sts.; loss \$15,000.

Ga., Atlanta—Bethel A. M. E. Church; loss \$300,000. Address The Pastor.

Ga., Birdsville—W. A. Law's residence.

Ga., Kirkwood (Ind. Branch of Atlanta)—Dr. F. P. Nisbet's residence, N. Boulevard St.; loss \$20,000.

Ga., Rome—Residence of Sam L. Graham, Clk. of Superior Court of Floyd County; loss \$25,000.

Ky., Henderson—Anderson Box & Basket Co.'s factory; loss \$85,000.

Ky., Lexington—Mrs. Americus I. Whitney's building at N. Broadway and Church Sts.; loss \$80,000 to \$100,000.

Ky., Louisville—Louisville Railway Co.'s car barn at 13th and Main Sts.; loss \$10,000.

Ky., Riddles Mills (R. D. from Paris)—Ben and Geo. Langston's store; loss \$20,000.

Ky., Skylight—Joseph Crum's residence.

La., Carson—Carson Hotel annex. Address The Owner.

La., New Orleans—Eugene Atkinson's residence, 6226 St. Charles Ave.; loss \$15,000.

Miss., Batesville—Batesville Hotel. Address The Proprietor.

Miss., Gulfport—J. J. & F. J. Bertucci's building at 25th Ave. and Railroad St.

Miss., Richton—G. C. McClellan's residence.

Miss., Slate Springs—High school building. Address School Board.

Miss., Vicksburg—W. R. Hackett's residence.

Mo., Cassville—Building at Barry County Farm; loss \$15,000.

Mo., Columbia—Schwabe Motor Co.'s, garage; loss \$30,000.

Mo., Joplin—First Presbyterian Church; loss \$100,000. Address Rev. R. H. W. Augustine, Pastor.

N. C., Adley—M. S. Church's residence.

N. C., Farmer—High School. Address Randolph County Board of Education.

N. C., Greensboro—Guilford Lumber Co.'s entire plant, on Ashe St.; loss between \$150,000 and \$200,000; J. D. Cobb's storage building on High Point Rd.

N. C., Oak Ridge—"Logholme," residence of D. L. Donnell, member, Guilford County Bd. of Commrs.; loss \$30,000.

N. C., Spray—North Spray School. Address School Board.

N. C., Washington—Interstate Cooperage Co.'s building; loss from \$10,000 to \$12,000.

N. C. Washington—Geo. Spencer's building at Market and Main Sts.

Okla., Delight—Public school building. Address School Board.

Okla., Slick—Slick Mercantile Co.'s building; Long-Bell Lumber Co.'s building under construction; J. S. Beddingfield's store; Roberts Grocery Store; Blue Front Garage.

S. C., Chester—Adam S. Pressley's residence, 7 miles west of Chester.

S. C. Florence—G. T. Parker's dwelling and store, E. Evans and Henry Sts., occupied by Mr. Truett; R. W. Ard's residence, Goose Pond Rd.

S. C., Florence—Residence on Burch Plantation south of Florence; owned by S. T. Burch; occupied by Albert W. Moye.

S. C., Manning—Ridgeway & Co.'s livery stables; Reardon's Blacksmith Shop; J. M. Appelt's residence.

S. C., Marion—W. S. Foxworth's building.

S. C., Pamplico—Wagoner Lumber Co.'s plant; loss \$50,000.

Tenn., Chattanooga—W. H. Sears' residence at 623 Hanover St., North Chattanooga; loss \$9,000.

Tenn., Chattanooga — H. B. Whiteman's residence; Tom Gilles residence; both Look-out Mountain.

Tenn., Lebanon—Ell Shorter's residence.

Tenn., Lebanon—R. B. Denny & Son's store on Coles Ferry Pike near Lebanon.

Tenn., Memphis—East End Garden, Madison Ave., East End Park, owned by J. P. Brennan and associates; loss \$10,000.

Tenn., Murfreesboro—Mrs. Fannie Turner's residence, E. College St.

Tenn., Rockwood—Kimbrough house near Rockwood, occupied by Wilbur Long.

Tex., Bryan—Mills Walker's residence; loss \$17,500.

Tex., Jayton—Corner Drug Store; Jones Drug Store; Bryant-Link Hardware Store.

Tex., Marlin—Silverman Building occupied by Hendelman Bros. and Odd Fellows' Hall; loss \$40,000.

Tex., Waco—Building at 6th and Jefferson Sts. occupied by Mrs. M. L. Brown's rooming house and J. Englander, Prop., Sun-Bright Mfg. Co.; owned by Goldstein-Migel Co.

Va., Arvonla — Dwelling on Slate River north of Arvonla occupied by John Saunders; owned by Alexander Williams.

Va., Cumner—Mattaponi Baptist Church. Address The Pastor.

W. Va., Elkins—Mont Bright's residence, First St.

W. Va., Wheeling — C. H. Becker's feed store; loss \$50,000.

Association and Fraternal.

Ky., Lennut—Himyar Coal Co. will erect Y. M. C. A. (See Miscellaneous.)

Ky., Sergeant—Apex Coal Co. will erect Y. M. C. A. (See Stores).

Ky., Sergeant—Imperial Elkhorn Coal Co. will erect Y. M. C. A. (See Miscellaneous.)

Mo., Kansas City—Young Men's Christian Assn. will erect Blue Valley branch, 12th St. and Bennington Ave.; fireproof; concrete faced with brick and stone; gymnasium, cafeteria, etc.; Van Brunt & Hertz, Archts.; foundation in.

Va., Fredericksburg—Washington Mother Lodge Memorial Assn., Frank Stearns, W. J. Ford and others, incptd. to erect temple.

Bank and Office.

Fla., DeLand—First National Bank will erect 5-story building; \$75,000 to \$100,000; W. J. Carpenter, Archt., St. Petersburg, Fla., and Pittsburgh, Pa.

Fla., Tampa—Merchants' and Mechanics' Bank, J. T. Puckett, interested, will erect building at Grand Central and Oregon Aves.

Md., Baltimore — Canton National Bank, East Ave. and Elliott St., Fredk. A. Dolfeld, Pres., will erect \$100,000 building, Clinton and Elliott Sts.; 2 stories; brick; limestone trim; 30x75 ft.; banking room finished in marble and bronze; mezzanine floor in rear; Wm. F. Stone, Jr., Archt., Munsey Bldg.

Mo., Kansas City—L. D. Marr purchased 4-story Bunker Bldg., 9th St. and Baltimore Ave., and will remodel for offices.

Mo., Kennett—Citizens' Savings Bank plans to erect building.

N. C., Asheville—L. B. Jackson & Co. will have plans ready within 10 days to erect 12-story office building, lately noted; 27x61 ft.; steel and hollow fireproof tile; concrete floors; metal ceilings; interior tile; metal doors; ornamental terra cotta; steel sash and trim; steam heat; Ronald Green, Archt.-Engr.; company desires to correspond with contractors interested in bidding on general contract; steel contract already awarded to Asheville Supply & Foundry Co. (See Mch. Wanted-Electrical Work; Heating Plant; Plumbing.)

Tenn., Memphis—Ellis-Jones Drug Co., 108 North Court, E. M. Ellis, Pres., will build balcony floor for office space; \$10,000; install pneumatic tubes.

Tex., Elgin—Elgin National Bank will erect \$25,000 bank and store building; 1 story; brick; H. F. Kuehne, Archt., Littlefield Bldg., Austin.

Tex., Greenville—Graham-Fagg Co., C. Fagg, Mgr., plans to add 2 stories to 2-story Garham-Fagg Bldg., for offices; elevators.

W. Va., Huntington—First National Bank, Robt. L. Archer, Vice-President, will erect 12-story annex to present building, 4th Ave. and 10th St.; \$300,000; 70x60 ft.; fireproof; structural steel, brick and terra cotta; 4 highspeed elevators; mezzanine floor; entrance from 10th St.; 2 stories on first floor; 148 offices; Meanor & Handloser, Archts.

Churches.

Ala., Birmingham—Church of the Advent will erect \$50,000 Sunday School building, 6th Ave. and 21st St.; auditorium, offices, etc. Address The Pastor.

Ala., Birmingham—St. John's Evangelical Church, Avenue F and 21st St., Rev. S. A. Ebinger, Pastor, will erect \$18,000 building, Avenue H and 27th St.; 2 stories; brick; Otto Pulse, Archt.

Ala., Birmingham — West End Baptist Church, Rev. J. A. Cook, Pastor, will erect

BUILDING NEWS

BUILDINGS PROPOSED

Apartment Houses.

D. C., Washington—Boss & Phelps will erect \$25,000 apartment house, 1212 M St., N. W.; 4 stories; brick; owners build.

D. C., Washington—W. A. Duigan will erect \$30,000 apartment house, 1737 P St., N. W.; 4 stories; brick; owner builds.

Fla., Jacksonville—J. Safer will erect 2 apartment houses, May St. near Gilmore St.; frame; 2 stories; 2 suites each; total \$16,000.

Ga., Atlanta—E. W. Bigham Investment Co. will erect \$1,500,000 bachelor apartment house, Harris St. between Ivy and Courtland Sts.; 12 stories; fireproof; E-shape; reinforced concrete and pressed brick; terra cotta trim; 2 stairways; passenger and 1 freight elevator; gymnasium, swimming pool, Turkish baths, billiard and ball rooms, etc.; heating plant, laundry, pressing club, boiler room, etc., in basement; 396 apartments with Murphy bed, bath and shower; 818 rooms; Daniel & Beutell, Archts., Healey Bldg.

Mo., Moberly—Chamber of Commerce is considering erecting one or more apartment houses.

Mo., St. Louis—Walter Jones Real Estate Co. purchased 9-acre tract, Northland and Spalding Aves. east of Union Blvd. and will erect 60 four and five-room flats; \$900,000; will also erect single flat, Red Bud Ave., efficiency apartment, Forest Park Blvd. and Newstead Ave., 2 bungalows on Maffitt Ave. and 3 on Leduc St.

N. C., Charlotte—Chas. E. Lambeth, Hermitage Court, Myers Park, will convert present residence for 2 apartments; will also erect two 3-story buildings of 12 suites each; total \$150,000; stucco and tile; hardwood floors; brick foundations; asphalt roofs; probably vapor system heat; hollow fireproof and in-

terior tile; ornamental terra cotta; L. L. Hunter, Archt.; Mr. Lambeth will also erect \$50,000 to \$75,000 residence in Myers Park; tile, brick or stone; C. C. Hook, Archt.; contracts not let. (Lately noted.)

Okla., Oklahoma City—C. E. Huffman has permit to erect 2 apartment houses, 200 E. 14th St. and 400 W. 23rd St.; total \$56,000. (See Dwellings.)

Tex., Austin—W. G. Brelsford will erect \$15,000 apartment house, 108 E. 14th St.; stucco; 4 suites; Roy L. Thomas, Archt., Scarborough Bldg.

Tex., Houston—Swedman & Page will erect apartment. (See Dwellings.)

Va., Norton—Jas. H. O'Dell, 210 Highland Ave., will erect O'Dell Apts., 6th St.; \$50,000; 3 stories and basement; 50x112 ft.; brick; hardwood and tile floors; concrete foundation; built-up roof; steam heat; recessed porches; 21 suites; Murphy beds; D. R. Beesan, Archt., Johnson City, Tenn.; owner builds; Old Dominion Power Co., Norton, electrical work; plumbing not let. (Lately noted.)

Va., Richmond—Davis Bros., Inc., 2510 W. Main St., will erect apartment house in 3100 block Monument Ave.; \$200,000; 39 suites.

Va., Richmond—C. E. Sprinkle, 27 N. 8th St., will erect \$30,000 stucco apartment house; 2 stories; 26x32x24 ft.; wood floors; brick foundation; tile roof; hot water heat; electric lights; plans and construction by owner.

W. Va., Charleston—Ira Mottesheard will erect \$12,000 apartment house, Cart St. near Hansford St.; 2 stories; brick and tile; 25 rooms; 5 suites.

W. Va., Charleston—Laura D. Cassidy will erect 4-family apartment houses on Vine St., \$14,000.

\$50,000 Sunday school building, Tuscaloosa Ave. and Hawkins St.; stone; tile roof; Jas. E. Greene, Archt.; plans to erect main auditorium and church building later.

Ala., Phoenix—Methodist Church, Rev. M. D. Taylor, Pastor, will erect Sunday school building and brick veneer present church structure; \$10,000 to \$15,000.

Ala., Troy—First Baptist Church will alter building and erect Sunday school addition; \$50,000; brick and stone; Herbert L. Cain, Archt., 12 N. 9th St., Richmond, Va.

Ark., Fort Smith—Methodist Episcopal Church, 11th and Grand Aves., Rev. Harvey A. Jones, Pastor, will erect \$100,000 building.

Ark., Little Rock—Second Presbyterian Church, Rev. Hay Watson Smith, Pastor, plans to erect building, probably 3rd and Gaines Sts.; about \$125,000; Sanders & Ginoecchio Archts. (Previously noted.)

Ark., Wynne—First Methodist Church will erect addition for Sunday school and rebuild present structure; \$30,000; brick; slate roof; 13 classrooms; steam seat, plumbing, wiring, etc.; Estes W. Mann, Archt., Memphis, Tenn.

Ky., Owensboro—Hall St. Baptist Church, Rev. J. J. Willett, Pastor, plans to erect Sunday school addition.

La., Coushatta—Methodist Church will erect brick building; \$15,000 to \$20,000. Address Rev. Mr. Hoffpauer, Pastor.

La., New Orleans—Toledano, Wogan & Bernard, Title Guarantee Bldg., prepared plans for \$35,000 church and \$10,000 rectory, Harrison Ave. and Catina St.

Md., Baltimore—Wilkins Ave. M. E. Church, South, will erect \$90,000 church and Sunday school building; brick, stone, steel and concrete; Herbert L. Cain, Archt., 12 N. 9th St., Richmond.

Mo., Excelsior Springs — Mount Pleasant Primitive Baptist Church plans to erect building. Address The Pastor.

Mo., Joplin—Catholic Diocese, Bight Rev. Lillis, Bishop, will divide congregation of St. Peter's Church, Rev. Father D. J. O'Driscoll, Pastor, and erect church in vicinity of St. John's Hospital, South Joplin.

Mo., Maryville — First Christian Church, Rev. R. E. Snodgrass, F. P. Robinson and others, bldg. comm., plans to erect building.

N. C., Asheville—Beth Ha Tephilia Temple, S. Lipinsky Pres., Spruce St., plans to erect building.

N. C., Dunn—Christian Congregation, L. A. Tart, Chmn. Bldg. Comm., will receive bids until March 7 to erect building; heating and plumbing under separate contract; plans and specifications at office Mr. Tart, and obtainable from office Stiles S. Dixon, Archt., Fayetteville, N. C.

N. C., Durham—Lakewood Baptist Church will erect \$30,000 brick building; Herbert L. Cain, Archt., 12 N. 9th St., Richmond.

N. C., Raleigh—First Presbyterian Church, John B. Wright, E. B. Crow and others, Finance Comm., plans to erect \$75,000 Sunday school building.

N. C., Wilmington—St. James Episcopal Church will erect parish house and alter present building; 2 stories and basement; tower from center; brick and stucco; Gothic type; auditorium; Hobart B. Upjohn, Archt., 5952 Grand Central Terminal, New York; plans ready Feb. 27; bids to be received until March 14, addressed to Mr. Upjohn, care Geo. B. Elliott, Wilmington. (Previously noted.)

N. C., Winston-Salem — First Baptist

Church, B. F. Huntley, Chmn. Bldg. Comm., will erect \$250,000 building, W. 5th St. near Poplar St.; Dougherty & Gardner, Archts., Stahlman Bldg., Nashville; bids opened Mch. 27. (Previously noted.)

S. C., Gaffney—First Baptist Church, Edw. Watson, Chmn. Bldg. Comm., plans to remodel and enlarge building at cost of \$30,000 or raise present structure and erect new building.

S. C., Great Falls—Methodist Episcopal Church will erect building. Address The Pastor.

S. C., Pickens—Presbyterian Church will erect building. Address The Pastor.

Tenn., Fountain City—Central Baptist Church, Rev. John C. Shipe, Pastor, plans to erect \$40,000 building.

Tenn., Chattanooga — Lewis Mission will erect \$10,000 community house and chapel, Pine St. near 2nd St.

Tenn., Martin—Central Baptist Church, A. L. Waggener, Clerk, will erect 2-story brick church; metal ceilings; concrete floors; rolling partitions; wire glass; basement completed. (Previously noted.)

Tex., Austin—First Methodist Church, Rev. Edw. R. Barcus, Pastor, will erect building, 12th and Colorado Sts.; 4 stories; brick and artificial stone; Sanguinet, Staats, Hedrick & Gottlieb, Archts., First Nat. Bank Bldg., Fort Worth; R. L. Thomas, Asso. Archt., Littlefield Bldg., Austin; Central Contracting Co., Dallas, low bidder at \$182,700; Schroeder Elec. Co., San Antonio, low bidder for electrical work and fixtures, \$4380. (Previously noted.)

Tex., Breckenridge—Presbyterian Church, Dr. J. W. White, Pastor, plans to erect \$18,000 addition to building; brick and concrete.

Tex., DeKalb—Methodist Church plans to erect building to replace structure lately noted burned at \$10,000 loss. Address The Pastor.

Tex., Omaha—Methodist Church, South, Rev. Herndon I. Robinson, Pastor, will erect \$12,000 building; 60x75 ft.; sub-story and upper floor; concrete and pine floors; concrete foundation; rolling partitions; steel sash and trim; wire glass; John W. Westbrook, Archt., Dallas; day labor; H. B. Stephens, contr. for electric lights; W. J. Ford, plumbing; both Omaha. (Lately noted.)

Tex., San Antonio—Beacon Hill Presbyterian Church will erect building, Woodlawn and Michigan Sts.; John M. Marriott, Archt.

Tex., Sinton—M. E. Church, South, will erect 2-story brick building; P. G. Silber & Co., Archts., San Antonio.

Va., Lawrenceville—Baptist Church, E. A. Wright, Chmn., will receive bids until March 20 to remodel and erect Sunday school addition; \$14,000; brick veneer; Herbert L. Cain, Archt., 12 N. 9th St., Richmond.

Va., Madison Heights — Madison Heights Baptist Church will erect \$30,000 brick veneer building; Herbert L. Cain, Archt., 12 N. 9th St., Richmond.

Va., Newport News—Ivey Memorial Baptist Church will erect \$25,000 brick building; Herbert L. Cain, Archt., 12 N. 9th St., Richmond.

Va., Pulaski—Presbyterian Church plans to erect \$50,000 building. Address The Pastor.

Va., Rockbridge Baths — New Providence Presbyterian Church will erect \$35,000 brick and stone building; Herbert L. Cain, Archt., 12 N. 9th St., Richmond.

Va., Rocky Mount—Scott Memorial Methodist Church, Rev. Strake Jett, Pastor, will erect \$75,000 brick building, Main St. and Claiborne Ave.; swimming pool, gymnasium,

etc. (Lately incorrectly noted under N. C. Rocky Mount.)

Va., Victoria—Herbert L. Cain, 12 N. 9th St., Richmond, is preparing plans for \$30,000 church and Sunday school building; brick; stone trim.

Va., Winchester—Church of Disciples of Christ, Rev. W. L. Dudley, Pastor, will erect \$25,000 building; 45x78 ft.; 2 stories; floor elevated in rear; S. H. Edmonds, Archt. (Lately noted.)

W. Va., Charleston—James L. Montgomery, Coyle & Richardson Bldg., will receive bids for whole or any part of work to erect Baptist Temple buildings, Quarrier and Morris Sts.; brick; 148x186 ft.; copper roof; composition tile floors; Ernest Flagg, Archt., 111 E. 40th St., New York; drawings and specifications with quantity surveys on file at Builders' Exchanges, Cincinnati and Columbus, Ohio, and Pittsburgh, Pa.; also at office Mr. Montgomery.

W. Va., Jaeger—Willie Lewis, Graham, Va., will prepare plans for church.

W. Va., Wheeling—North Street Methodist Episcopal Church will erect \$10,000 annex. Address The Pastor.

City and County.

Ky., Lexington—City Hall—Board of City Commrs. plans to erect city hall.

La., Alexandria—Fire Station—City will erect fire station, Bolton Ave., Joe Carver and E. Leo Ball, Asso. Archts.

Md., Baltimore—Comfort Station—Board of Awards, Mayor Wm. F. Broening, Pres., will receive duplicate bids until March 7 at office Richard Gwinn, City Register, City Hall, to erect comfort station at Northeast Market; drawings and specifications at office J. F. Crowther, Inspector of Bldgs., City Hall.

Md., Baltimore — Stadium —Board of Awards, Mayor Wm. F. Broening, Pres., will receive bids in duplicate at office of Richard Gwinn, City Register, City Hall, until March 7 to erect entrance building at Baltimore Stadium; \$150,000; Grecian type; 2 stories; colonnades; offices, locker and rub rooms, shower baths, etc.; drawings and specifications from Josias Pennington, Archt., 330 N. Charles St. (Lately noted.)

N. C., Caroleen—Jail and Home—Rutherfordton County will erect \$40,000 jail; also plans to erect county home. Address County Commrs., Rutherfordton.

N. C., Madison—Fire Station—City, J. C. Thompson, Town Clk., will receive bids until March 2 to erect 2-story brick fire house; 20x50 ft.; plans and specifications from V. H. Idol.

N. C., Rutherfordton—Jail — County will erect jail; 3 stories; electric lights; steam heat; showers; Milburn, Heister & Co., Archts., Union Savings Bank Bldg., Washington, D. C., and Durham, N. C.; contract let March 5. (Previously noted.)

Dwellings.

Ala., Huntsville—Lowe Manufacturing Co., will erect 20 or more dwellings for employees and 3 warehouses; \$40,000; J. H. McGregor, Gen. Agt.

D. C., Washington—E. R. Anderson will erect 3 dwellings, 700-04 Longfellow St.; N. W.; 2 stories; brick; \$15,000; owner builds.

D. C., Washington—L. E. Breuninger, Colorado Bldg., will erect 2 dwellings, 1602-04 Webster St., N. W.; \$24,000; 2 stories; brick; owner builds.

D. C., Washington—H. A. Kite will erect 17 dwellings, 742-74 Fairmont St., N. W.; 2 stories; brick; \$90,000; owner builds.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

D. C., Washington—G. P. Cary will erect 2 dwellings, 2607-14 Fourth St., N. E.; 2 stories; frame; \$11,000; owner builds.

D. C., Washington—D. J. Dunigan will erect 7 dwellings, 4201-13 Fourth St., N. W.; 2 stories; brick; \$42,000; owner builds.

D. C., Washington—H. R. Howenstein will erect 2 brick dwellings, 5829-31 Piney Branch Rd., N. W.; 2 stories; \$12,000; owner builds.

D. C., Washington—B. A. McQuarry will erect 3 dwellings, 3045-49 Porter St., N. W.; 2 stories; brick; \$15,000; owner builds.

D. C., Washington—C. H. Marshall will erect 2 dwellings, 6107-09 Fourth St., N. W.; 2 stories; frame; \$10,000; owner builds.

D. C., Washington—C. D. Sager will erect 10 dwellings, 4501-19 Illinois Ave., N. W.; 2 stories; brick; \$61,000; owner builds.

Fla., Dade City—W. A. Ybanez, Jackson, Mich., purchased site on Indian Pond and will erect winter residence.

Fla., Kelsey City—E. V. Earle, Boston, Mass., will erect 6-room residence on First St.; Wm. King, Archt.; plans later to erect 20 dwellings. (See Stores.)

Ky., Sergeant—Apex Coal Co. will erect several miners' houses. (See Stores.)

Ky., Sergeant—Imperial Elkhorn Coal Co. will erect 12 miners' houses. (See Miscellaneous.)

Ky., Thornton—Elkhorn Collieries Co. will erect 20 miners' houses. (See Stores.)

La., Monroe—Baptist Board will erect 5 cottages; \$25,000 each; J. W. Smith, Archt.

La., New Orleans—Emile Joubert will erect 6 dwellings, Parkview Pl. and Wilson Dr.

La., New Orleans—Dr. J. Sauter Muller will erect \$20,000 residence, Carrollton Ave. near Panola St.

Md., Baltimore—Bernard M. Oberdorfer, Cambridge Apts., will erect four 2½-story stucco dwellings on Powhatan Ave., near Hilton St.; \$12,000.

Md., Baltimore—Geo. M. Hampson, 10 E. Fayette St., will erect 5 dwellings, 3030-38 Brighton St.; \$18,000; 2 stories; brick.

Md., Baltimore—Harry O. Levin, 453 Calvert Bldg., will erect 2-story brick dwelling, 2431 Linden Ave.; 19x61 ft.; about \$10,000.

Md., Baltimore—Jos. Pistorio, 2542 Harford Ave., will erect 7 dwellings, S. W. cor. Gwynn's Falls Parkway and Ellamont St., and 3 west side Ellamont St., near Gwynn's Falls Parkway; 2 stories; brick; 15x46 ft. and 20x31 ft.; slag roof; steam heat; \$22,000; Marion Nasco, Archt.; 400 Forrest St.; owner builds.

Md., Baltimore—J. Irving Bealmear, 3410 Elgin Ave. will erect 22 dwellings, S. W. cor. Linwood and Summitt Aves.; 2 stories; frame; 15x45 ft.; steam heat; \$36,000; concrete garages, 20x30 ft.; Cyril H. Hebrank, Archt.; 3401 Fairview Ave.; owner builds. (Lately noted in part.)

Md., Baltimore—Merin Bros., 2225 Callow Ave., will erect 5 dwellings, N. E. cor. Reisters-town Rd. and Manchester Ave.; 2 stories; brick; \$18,000.

Md., Baltimore—Mueller Construction Co., M. G. Mueller, Treas., 22 Gunther Bldg., will erect 14 dwellings, 200-26 Homewood Terrace; 2½ stories; brick; 22x35 ft.; slate roofs; hot water heat; \$77,000; plans by Mr. Mueller; owner builds. (Lately noted.)

Md., Baltimore—Geo. W. Schoenhals, 101 S. Linwood Ave., will erect 18 dwellings, 800-34 N. Bentalou St.; 2 stories; brick; \$35,000.

Md., Berwyn—M. A. Quinn, Roanoke, Va., purchased 106 lots and plans to erect number of dwellings.

Md., Towson—Norman E. Fryer, 431 Cal-

vert Bldg., Baltimore, will erect residence on Highland Ave., opposite Pennsylvania Ave.; Colonial design; \$25,000; 2½-stories; stone and frame; 29x37.6 ft.; 10 rooms, 2 baths and sun parlor; J. E. Moxley, Jr., Archt., Equitable Bldg.

Miss., Brookhaven—W. P. Bonds plans to erect bungalow on N. Church St.

Miss., Laurel—First Baptist Church, Rev. L. G. Gates, Pastor, is considering erecting parsonage and also constructing playground.

Mo., Kansas City—Agee-Block Construction Co., 405 Commerce Bldg., will erect 24 dwellings; 24x50 ft. and 22x42 ft.; 1 and 2 stories; wood floors; rubble foundation; composition shingle and gravel roofs; \$6000 to \$8000 each; C. M. Jespersen, Archt., 405 Commerce Bldg.

Mo., Kansas City—Fletcher Cowherd, Jr., will erect four \$4000 dwellings, 5341-42-45-47 Harrison St.

Mo., Kansas City—G. A. Huston will erect twelve \$1000 dwellings, 5713-14-15-16-17-18-19-20-22-24-26-29 Wabash Ave.

Mo., Kansas City—Missouri Building Co. will erect three \$18,000 dwellings, 1108-10-14 W. 49th St.

Mo., St. Louis—Walter Jones Real Estate Co. will erect 2 bungalows on Maffitt Ave. and 3 on Leduc St., excavation begun. (See Apartment Houses.)

N. C., Charlotte—Chas. E. Lambeth, Hermitage Court, Myers Park, will erect \$50,000 to \$75,000 residence, Myers Park; tile, brick or stone; C. C. Hook, Archt., contract not let. (See Apartment Houses.)

Okla., Oklahoma City—C. E. Huffman has permit to erect \$3500 dwelling, 517 W. 26th St., \$13,000 dwelling, 2315 N. Hudson St., \$40,000 brick apartment house, 200 E. 14th St., \$16,000 apartment, 400 W. 23rd St., \$15,000 garage, 26 W. 10th St., and \$24,500 addition to school building, 1424 W. 7th St.

S. C., Chester—J. S. Colvin plans to erect 7-room brick residence, West End.

S. C., Fort Mill (R. F. D.)—Dr. R. M. Potts plans to rebuild burned residence.

Tenn., Chattanooga—Z. C. Patten, Jr., will remodel and enlarge residence, Oak and Palmetto Sts.; Italian renaissance type; \$10,000; Clarence T. Jones, Archt., James Bldg.

Tenn., Fountain City—Fountain City Land & Development Co., W. H. Prince, and others, plans to build number of dwellings; construction to proceed as houses are sold. (Lately incorrectly reported to erect 150 dwellings.)

Tenn., Memphis—L. C. Schaffler will erect \$15,000 residence on Stonewall Pl., near N. Parkway; 2 stories; brick veneer; 9 rooms and 2 baths; oak floors; red gum interior trim; J. L. Gatling, Archt.

Tenn., Memphis—Mrs. Francis Andrews will erect English type residence, N. Parkway near Morningside Park; stonecote over hollow tile; brick and stone trim; oak interior finish; 2 baths; wrought iron stairway.

Tenn., Nashville—G. L. Hicks will erect 6 dwellings, 1000 block Caldwell Ave.; \$4000 each.

Tex., Austin—Dr. D. A. Lane will erect 2-story stucco residence, W. 6th St.; Roy L. Thomas, Archt., Littlefield Bldg.; Scott Yeaman, low bidder at \$9988, exclusive of plumbing, heating and wiring.

Tex., Breckenridge—I. W. Raney will erect \$40,000 residence; Raphael A. Nicolais, Archt., Fort Worth.

Tex., Dallas—B. C. Lucas, Pres., Dallas Development Co., will erect \$30,000 residence,

Westrick Rd. and University Blvd., Windsor Place.

Tex., Dallas—N. H. Windsor, Secy-Treas., Dallas Development Co., will erect \$30,000 residence, Westrick Rd. and University Blvd., Windsor Place.

Tex., Houston—Swedman & Page will erect 2-story 9-room residence at 419 Branard St.; \$12,000; also 16-room stucco apartment, 2406 Jackson St.; \$12,438.

Tex., San Antonio—Joe Frost of Frost Bros. Co., will erect \$25,000 residence; tile and stucco; Herbert S. Green, Archt.

Tex., San Antonio—H. J. Shearer will erect 4 dwellings, Magnolia Dr., Brackenridge Parkway Addition; \$3000 to \$4000 each.

Tex., San Antonio—Geo. Hagelstein will erect 2-story residence, Woodlawn Hills; brick; thatched shingle roof; Ralph H. Cameron, Archt.

Va., Lynchburg—John B. Cox will erect 2-story and basement residence, Boston Ave., Randolph Macon Hts.; Italian type; Stanhope S. Johnson, Archt.

Va., Richmond—R. D. Watkins, 704 Westover Rd., will erect two \$26,000 dwellings, 715 Spottswood Rd. and 716 Westover Rd.; 40x59x28 ft. and 38x62x26 ft.; both 2 stories; brick; wood floors; brick foundations; slate or tile roofs; hot water heat; electric lights; O. K. Asbury, Archt., 110 N. 7th St.; owner builds.

Va., Richmond—Housing Investment Co., 127 N. 8th St., will erect 6 dwellings, 2004-06 Second, 2510-12-14 Fourth and 2401 Fifth Aves.; 2 stories; 24x28x25 ft.; stucco; wood floors; cinder block foundations; tin and slate roofs; hot water heat; electric lights; total \$27,000; plans by owner; Ellis & Black, Contrs., 127 N. 8th St.

Va., Richmond—B. T. Stanley, 2600 Hull St., will erect 2 stucco dwellings, 8 and 10 Dundee St.; \$10,000; 2 stories; 28x28x26 ft.; wood floors; brick foundations; furnace heat; electric lights; plans and construction by owner.

W. Va., Charleston—Goings Construction Co. will erect 2 frame stucco dwellings, California Ave. near Quarrier St.; 6 rooms each; \$14,000.

Government and State.

W. Va., Huntington—Dwellings—U. S. Engineer Office, Huntington, will receive bids until March 27 to erect two 2-story lock-keepers' double houses at each of Dams Nos. 14 and 26, Ohio River; 12 rooms.

Hospitals Sanitariums, Etc.

Mo., St. Louis—Board of Public Service will alter and erect additions to City Sanitarium; Geo. Moeller, low bidder at \$34,688; other low bids as follows: plumbing, Finn & O'Brien Plumbing Co., \$788; heating equipment, Urbauer-Atwood Heating Co., \$1960.

Okla., Oklahoma City—Baptist Hospital, J. E. Finney, Supt., 12th and Walker Sts., plans to erect \$300,000 building, 8th St. and Durland Ave.; 200 rooms; L-shape.

S. C., Cedar Spring—South Carolina School for Deaf and Blind, Mr. Walker, Supt., will erect \$31,500 hospital building; appropriation available.

Hotels.

Fla., Hollywood—Hollywood Land & Water Co., J. W. Young, Pres., plans to erect \$2,000,000 hotel at Hollywood Beach; 500 rooms; fireproof; concrete. (Previously noted.)

Fla., Jacksonville—A. F. Pickard and T. J. Appleyard, Jr., Lakeland, and J. A. Yates,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Jacksonville, will incorporate company with \$500,000 capital to erect hotel.

Fla., Miami Beach—Traymore-by-the Sea Hotel Co., Louis Shopiro, Treas.-Mgr., Marevista Apts., will erect \$140,000 hotel at Fourth St. and Ocean Dr.; 3 stories; 2 additional stories later; 100 ft. frontage; 100 rooms with private bath; W. C. DeGarmo, Archt., Miami.

Ky., Pikeville—Pocahontas & Sewanee Iron Co. will erect \$50,000 hotel; 2 stories; 50 rooms; brick; steam heat.

La., New Orleans—Jos. and Lucca Vaccaro, Chas. Leftwich, W. Irving and Mike M. Moss and Harold Newman are organizing company; purchased Grunewald Hotel and annex, Bienville Hotel, Grunewald laundry, etc., and will remodel Grunewald Hotel and erect 20-story hotel on site of present annex on Baronne St.

Mo., St. Louis—Norman Howard is preparing plans for \$500,000 family apartment hotel at Euclid and Maryland Aves. to be known as Fairmount Hotel; 10 stories; 100 rooms with private bath.

N. C., Wilmington—Hinton Hotel Co., R. H. Northrop and others, will erect 40-room addition to Seashore Hotel on Wrightsville Beach.

Okla., Tonkawa—Tonkawa Hotel Assn., H. J. Barclay, Prest., organized with \$80,000 capital and will erect hotel; 43 guest rooms, 14 of which will have baths and all hot and cold running water.

Tex., Austin—Baker Hotel Co., T. B. Baker, Prest., will receive bids until March 15 to erect \$500,000 hotel on Congress Ave.; 16 stories; steel, concrete and brick; plans and specifications at office Sanguinet, Staats & Hedrick, Archts., Forth Worth. (Previously noted.)

W. Va., Shinnston—Shinnston Hotel Co., C. P. Hood, Prest., will erect \$60,000 building on Bridge St.; 3 stories and basement.

Miscellaneous.

D. C., Washington—Amusement Park — Hill Top Amusement Co., Arthur J. Brosseau, Prest., will construct amusement park at 20th St. and Benning Rd.

Ky., Lennut—Clubhouse—Himyar Coal Co. will erect clubhouse and Y. M. C. A.

Ky., Louisville—Home—Christian Widows and Orphans Home, 225 College St., will erect \$100,000 building adjoining present site; 3 stories; 50 rooms.

Ky., Sergeant—Clubhouse—Imperial Elkhorn Coal Co. will erect clubhouse, Y. M. C. A. and 12 miners' houses; contract at once.

N. C., Rocky Mount—Library—Rocky Mount Public Library Assn., F. E. Winslow, Chrmn. Bldg. Comm., will receive bids until March 10 to erect public library; plans and specifications at office Wilson & Berryman, Archts., 804 Palmetto Bldg., Columbia, S. C., and 105 Davis Bldg., Wilson, N. C.

Tenn., Knoxville—Home—Mount Zion Baptist Church, Rev. J. H. Henderson, Pastor, will erect mission home for colored people; \$10,000; 27 rooms and 7 baths; brick veneer.

Railway Stations, Sheds, Etc.

Mo., Lathrop—Chicago, Burlington & Quincy, R. R., A. W. Newton, Ch. Eng., Chicago, will erect passenger station.

Schools.

Fla., Knights—Knights Special School Tax Dist. Trustees plans to erect building; considering election on \$10,000 bonds.

Fla., Tampa—Sulphur Springs School Dist. Trustees plan to erect building; considering election on \$10,000 bonds.

Ky., Ashland—Board of Education, P. D. Wells, Secy., will receive bids until March 28 to erect \$100,000 junior high school; 141x99 ft.; 3 stories; concrete foundation; fireproof and hardwood floors; composition or concrete roof; furnace blast system of heat; hollow fireproof tile; ventilators; steel sash; plans and specifications at office Tyson & Foster, Archts., Grand Theater Bldg. (Lately noted.)

Ky., Greenville—Muhlenberg County Board of Education will erect \$57,000 school.

Ky., Sergeant—Apex Coal Co. will erect school. (See Stores.)

La., Benton—Bossier Parish School Board, R. V. Kerr, Secy., will erect building; 2 stories; 118x70 ft.; "T" shape; brick; Edw. F. Neild, Archt., Shreveport.

La., Hammond—Tangipahoa Parish School Board, W. A. Sisemore, Supt., will receive bids until March 20 to erect \$100,000 school; 2 stories; 75x225 ft.; 20 classrooms and auditorium to seat 650; composition roof; steel sash; brick and mill construction; plans and specifications at office Sam Stone, Jr., Archt., 714 Union St., New Orleans.

La., Jonesville—Catahoula Parish School Board, H. W. Wright, Secy., rejected bids to erect building and will have plans revised and call for new bids to be opened April 6; 2 stories; brick; J. W. Smith, Archt., Monroe.

La., Slidell—St. Tammany Parish School Board, Covington, will erect high school and addition to school in Pearl River township; \$85,000 bonds available. (Lately noted.)

Md., Baltimore—Baltimore Talmud Torah Society, 1029 E. Baltimore St., purchased former home of Hebrew Children's Sheltering Protective Assn., at Broadway and Fairmont Aves., and will remodel for school; \$25,000; Israel Silberstein, Chrmn. Bldg. Comm., Equitable Bldg., may be addressed.

Miss., Aberdeen—City will vote March 6 on \$125,000 bonds to erect school building. Address School Board.

Miss., Oxford—City plans vote on \$75,000 bonds to repair school and erect several structures. Address Board of Education.

Miss., Oxford—Lafayette County Board of Education plans to erect school in Perkins Consolidated School Dist.; election March 3 on \$12,000 bonds.

Miss., Pascagoula—City, J. R. Watts, Mayor, will vote March 5 on \$100,000 bonds to erect high school. (Lately noted.)

Miss., Silver Creek—Board of Education will erect brick building.

Mo., Dexter—City is considering election on bonds to erect high school.

Mo., Fair Play—School Board, Dr. C. H. Brown, member, will erect \$30,000 high school; bonds voted.

Mo., Gilman City—City voted \$75,000 school bonds. Address Board of Education.

Mo., Pleasant Hill—School District Trustees, will erect high school and remodel present structure; \$90,000 bonds voted.

N. C., Asheville—Buncombe County Board of Education, Frank Wells, Supt., plans to consolidate Slate, Cedar Hill, Embler and French Broad School Dist., and erect high school; \$50,000.

N. C., High Point—City School Board, W. M. Marr, Supt., will erect building in Cloverdale section; Herbert B. Hunter, Archt., Burlington.

N. C., Shiloh—School Board, L. L. Stevens, County Supt., Camden, will receive bids until March 12 to erect 8-room school; blue prints and specifications obtainable at L. S. Walston, Secy., School Board, Shiloh, or may be seen at office M. P. Jennings, Supt. of Pasquotank County, Elizabeth City.

Okla., Miami—City, W. L. McWilliams, Mayor, voted \$100,000 bonds to erect high school; R. J. Tuthill, Prest., Board of Education. (Lately noted.)

Okla., Oklahoma City—C. E. Huffman has permit to erect \$24,500 addition to school, 1424 W. 7th St. (See Dwellings.)

S. C., Cheraw—School Board, R. T. Caston, Chrmn., will receive bids until March 5 to erect high school; separate bids for heating and plumbing; plans and specifications at office of W. J. Wilkins & Co., Archts., Florence; \$75,000 bonds voted.

S. C., Clito—Trustees of School Dist. No. 9, H. J. Bennett, Chrmn., will receive bids until March 15 for erecting and heating high school building; 14 rooms; Willis Irvin, Archt., 617 Lamar Bldg., Augusta, Ga.; plans on file in offices of Builders' Exchanges, Atlanta, Ga., Columbia, S. C., Raleigh, N. C., Charlotte, N. C.; offices Mr. Bennett, and architect as above.

S. C., Seneca—School Board will erect \$50,000 building.

Tenn., Copperhill—Polk County Board of Education, Benton, will erect high school; \$25,000; brick; Manley & Young, Archts., Knoxville.

Tenn., Dandridge—Jefferson County Board of Education will erect school at Kansas on Morristown Rd.; 4 classrooms and auditorium.

Tenn., Prendergast—Polk County Board of Education, Benton, will erect school; 6 rooms and auditorium; Manley & Jones, Archts., Knoxville.

Tenn., South Pittsburg—School Board sold \$55,000 bonds to erect building; brick; stone trim; 13 rooms.

Tex., Fredericksburg—Our Lady of Lourdes Catholic Church, Victoria, will erect school; \$40,000; brick, stone trim; Leo M. J. Dielmann, Archt., San Antonio; bids ready in few days. (Lately noted at Tex., Victoria-Churches.)

Tex., Tehuacana—Methodist Protestant College will erect addition to main building and 5 or 6 additional buildings; P. G. Silber & Co., Archts., San Antonio.

Tex., Tyler—City will vote March 15 on \$250,000 bonds to erect junior high school and make improvements to ward schools. Address Board of Education. (Lately noted.)

Va., Charlottesville—City School Board will erect primary school, Gordon Ave. and 14th St.; accommodate 800.

Va., Fort Myers Heights—Jefferson School Dist. will vote March 5 on \$150,000 bonds for following improvements: High school at Del Ray; \$84,000; enlarge Mt. Vernon elementary school, \$28,000; erect school, Virginia Highlands, \$23,000; addition to Jefferson colored school, \$15,000; Prof. Fletcher Kemp, Supt. of Schools. (Lately noted.)

W. Va., Huntington—Board of Education, Jno. D. Graham, Supt., will receive bids at office L. J. Dean, Archt., 907 5th Ave., until March 19 to erect Guyandotte elementary school addition; separate bids for heating, plumbing, wiring and electric fixtures; \$70,000; 2 stories and basement; 10 rooms; concrete, steel, hollow fireproof and interior tile; concrete and hardwood floors; cement foundation; metal doors; steel sash and trim; wire glass; ventilators; hot air heat; plans and specifications at office architect. (Lately noted.)

Stores.

Ala., Birmingham—Argo Investment Co. is reported to erect \$1,000,000 department store and office building at Fourth Ave. and Nineteenth St.; 150x140 ft.; 10 stories.

D. C., Washington—J. M. Gidding & Co., M. H. Stokes, Mgr., will erect 3-story building at 1307-09 F St., N. W.; steel and concrete; Indiana limestone front; Arthur B. Heaton, Archt.

Fla., Bradentown—Roy Parkers will erect building at Manatee and Washington Aves.; 1 story; 50x100 ft.; brick or stucco on hollow tile.

Fla., Bradentown—J. K. Singeltary will erect 2-story brick building on Pine St.; 100x120 ft.

Fla., Gainesville—Philip Miller will erect block of 5 stores on W. University Ave.; 100x60 ft.; Spanish renaissance type; hollow tile and brick walls; stucco and art stone trim; tile and cement floors; built up roof; plate glass fronts; contract let March 1; Newbold L. Goin, Archt.

Fla., Kelsey City — E. V. Earle, Boston, Mass., will erect 2 business buildings on Dixie Way; 100x50 ft.; 5 stories; also erect 6-room residence on First St.; Wm. King, Archt.; plans later to erect 20 dwellings.

Fla., Miami—Geo. W. Webber, Washington, D. C., will erect building on Alhambra Plaza; 50x60 ft.; 1 story; hollow tile stucco; H. Geo. Fink, Archt., Miami.

Fla., Palmetto—W. H. Gillette will erect store building on Lemon Ave.

Fla., Tampa—Sam Pritchard will erect store building at 1501-09 Grand Central Ave.; 66x59 ft.; 1 story; J. W. Bigger, Archt.; construction by owner.

Ky., Sergeant—Apex Coal Co., (main office, Lynchburg, Va.) will erect store, Y. M. C. A., several miners' houses and school.

Ky., Thornton—Elkhorn Collieries Co. will erect commissary and 20 miners' houses; contract within 2 weeks.

La., Gretna—Frank C. Duvic will erect 2-story building to be occupied by Gretna Hardware Co.

Md., Baltimore—Laura V. Bowie, 811 N. Eutaw St., will remodel and redecorate building at 14 W. Lexington St. to be leased by Huyler's Confectionery, New York; \$30,000; 4 stories; 25x125 ft.; tea room on first floor.

Md., Baltimore—W. T. Grant Co., 28 W. 23rd St., New York, will remodel buildings at 212-16 and 218-20 W. Lexington St.; \$125,000.

Mo., Kansas City—Gallup Map & Supply Co., F. E. Gallup, Prest., will erect 2-story fireproof building at 1330 Walnut St.

N. C., Granite Falls—Dr. A. D. Abernathy will erect 2-story store and office building; 18½x60 ft.; plate glass front.

N. C., Granite Falls—Moore Bros. will erect building; 25x60 ft.; 2 stories; brick; plate glass front.

N. C., Pinehurst—Market Square Co., Inc., A. S. Newcomb, Prest., will erect \$150,000 store on Dogwood Rd.; 2 stories; 125x60 ft.; brick; electric lights; Aymar Embury, 2nd, Archt., 132 Madison Ave., New York.

N. C., Wallace—Wallace Dry Goods Co., Isaac Margolis, Mgr., will erect 4-story building; brick.

Okl., Bartlesville—J. P. Govereau will erect 2 stores and apartment building on W. 4th St.

S. C., Andrews—Melvin Hornig will rebuild business block.

Tenn., Memphis—Mrs. Elizabeth Messick Houck, Trustee for Messick Estate, will rebuild 4-story brick building at Madison and Second Sts.; \$50,000; fronts to be replaced with steel, brick and glass; metal and glass marquise to circle building; tile floors; steam heating plant, plumbing and wiring;

passenger elevator; Hanker & Cairns, Archts.

Tex., El Paso—American Furniture Co., Jos. Blaugrund, Prest., will erect 2-story addition and remodel 2 floors of Hotel Savoy adjoining; install elevator; \$17,000.

Tex., San Antonio—I. Tobias will erect 7-room store building at W. Commerce and Pecos Sts.; 1 story and basement; reinforced concrete; Jno. M. Marriott, Archt.; bids opened.

Va., Coeburn—Coeburn Grocery Co., J. D. Clay, Jr., Prest., will erect 4-story brick building at Front and Center Sts.

W. Va., Bluefield—Phelps Furniture Co., Inc., T. J. Phelps, Prest., will erect 5-story addition to building; \$30,000; 50x140 ft.; ordinary construction; freight and passenger elevators; R. L. Dye, Foreman.

W. Va., Martinsburg—Frank L. Hodgson will erect 3-story business and apartment building, W. King and Raleigh Sts.; \$40,000.

Theatres.

Ala., Birmingham—Realty Finance Co. is reported to erect \$1,000,000 theater on Fifth Ave. for Interstate Amusement Co., Karl Hoblitzelle, Prest., Dallas, Tex.

Fla., New Smyrna—Howell Investment Co. will erect building on Canal St. to be leased by H. T. Titus, Daytona; 2 stories.

BUILDING CONTRACTS AWARDED

Apartment Houses.

Tenn., Memphis—Abraham Lewis and J. J. Ginsberg, 96 N. Main St., will erect \$90,000 apartment house, Madison and Idlewild Sts.; 3 stories and basement; brick; 18 suites; Murphy beds, built-in wardrobes; tiled sun parlors, etc.; hardwood floors; individual fire escapes and iron service stair; Chas. Deas, Archt.; Joe Bloomfield, Contr. (Previously noted.)

Va., Richmond—W. R. Palmore, 2510 Hanover St., will erect apartment house, east side of Boulevard between Carey and Taylor Sts.; 3 stories; 12 suites; brick; W. E. Purcell, Jr., Contr.

Association and Fraternal.

Fla., Fort Myers — Pythian Bldg. Corp. will erect building on Hendry St.; \$90,500; 50x100 ft.; fireproof; steel and brick; terra cotta trim; marble base; 4 stories; 2 stores on first floor; Fred J. James, Archt.; Carmen Co., Contr. (Previously noted.)

Fla., Jacksonville—St. Joseph's Aid Society, T. H. B. Walker, Supreme Grand Chief, will erect \$60,000 building, State St. and Broad St. Lane; 5 stories; brick; stores on first floor, apartments on second and third, lodge to occupy fourth and fifth; John Rosemond, Contr.

Va., Lynchburg—Salvation Army will erect \$44,000 citadel, 12th and Church Sts.; Stanhope S. Johnson, Archt.; W. K. Barger, Contr.

Bank and Office.

Mo., St. Louis—Missouri State Life Ins. Co., 15th and Locust Sts., will erect 5 and 8-story additions to building; \$450,000 to \$500,000; fireproof; steel, brick and terra cotta; concrete and tile floors; composition 15-yr. roof; hollow fireproof and interior tile; metal doors; vaults; mail chutes; ornamental terra cotta; steel sash and trim in part; A. B. Groves, Archt.; A. A. Aegerter, Engr.; both 314 Fourth St.; McKelvey Construction Co., Title Guaranty Bldg., contr. on cost

N. C., Wallace—E. G. Wells will erect brick building for Wacona Theater Co.

Warehouses.

Ala., Huntsville—Lowe Manufacturing Co. will erect 3 warehouses. (See Dwellings.)

D. C., Washington—General Auto Truck Co. will erect 2-story brick and concrete warehouse, 2110 D St., N. W.; \$40,000; construction by owners.

Md., Baltimore—Edward C. Heinz, 1908 Light St., will erect \$12,000 storage building at 1910-14 Light St.; 42.4x69.10 ft.; 2 stories; brick.

Mo., St. Louis—Fidelity Transfer Co. will erect \$200,000 warehouse at Broadway and Cerre St.

N. C., High Point—J. S. Welborn will erect 3-story building at Commerce and Willowbrook Sts.; storage rooms on lower floor; apartments above; Harry Barton, Archt., Greensboro. (Lately noted under Stores.)

S. C., Greenville—K. S. Conrad will erect 3-story brick warehouse, Rhett St.; \$20,000; fireproof; metal roof; steel sash and trim; elevator; to be occupied by Smith Dray Line.

Va., Richmond—Baughman Stationery Co. will erect warehouse on W. Marshall St.; \$300,000; 2 stories; reinforced concrete; bids opened Feb. 26.

plus basis; heating not let. (Lately noted.)

Va., Abingdon—First National Bank will erect \$100,000 building; 45x85 ft.; Indiana limestone exterior walls; front and rear portions of building, 2 stories; remainder, 1 story; Jno. P. Pettyjohn & Co., Contrs., Lynchburg.

W. Va., Huntington—H. A. Robson and Fred C. Prichard will erect 10-story annex at rear of present Robson-Prichard Bldg., 9th St.; \$100,000; 40x40 ft.; reinforced concrete; 50 offices; Elxner & Anderson, Archts., Citizens' National Bank Bldg., Cincinnati, O., Arnold Co., Contrs., 105 LaSalle St., Chicago.

Churches.

Fla., Jacksonville—Church of Holy Rosary, Rev. Father Lyons, Pastor, will erect \$80,000 building, Laura St. and Cottage Ave.; Roman design; 60x100 ft.; brick faced with Arnold stone; Jas. Walsh, Archt.; W. T. Hadlow, Contr.; construction begun.

Fla., West Palm Beach—First Church of Christ will erect \$25,000 building on Hibiscus Ave.; 58x68 ft.; Spanish mission type; balcony across auditorium; kitchen, dining room, club room, etc., in basement; Geo. Fiers, Contr.

Md., Baltimore—P. E. Church of the Nativity, Rev. Chas. A. Hensel, Pastor, York and Cedarcroft Rds., will erect \$50,000 parish house; Tudor-Gothic design; 2 stories and basement; 50x112 ft.; stone, hollow tile and stucco; Mottu and White, Archts., 324 N. Charles St.; Tase-Norris Co., Inc., Contr., 106 W. Madison St.; plans to erect church and rectory later. (Previously noted.)

N. C., High Point—First M. P. Church

will erect \$130,000 church and Sunday school building; English renaissance architecture; auditorium to seat 1000, Sunday school 1200; R. K. Stewart & Son, Contrs. (Previously noted.)

Okl., McAlester — First Presbyterian Church, A. B. Ringland, Chmn. Bldg. Comm., First Nat. Bank Bldg., will erect 2-story and basement building; \$100,000; brick and Carthage stone trim; 108x80 ft.; concrete and yellow pine floors; reinforced concrete foundation; asbestos shingle or slate roof; hollow fireproof and interior tile; ventilators; Hawk & Parr, Archts., Oklahoma City; Altman & Rogers, Contrs., McAlester. (Previously noted.)

Tex., Houston—First Baptist Church, Rev. Jas. B. Leavell, Pastor, will erect \$267,000 building; 5 stories; brick and stone; concrete floors; reinforced concrete foundation; C. D. Hill & Co., Archts.; Mr. Dehnert, Engr.; Tom Tellepsen, Contr.; Dixie Heating & Ventilating Co., heating; Warren & Co., plumbing; Otis Elevator Co., elevator. (Previously noted.)

Tex., San Antonio—St. Patrick's Church will erect \$36,000 building; brick; 52x130 ft.; wood floors; concrete piling; tin roof; Emmett T. Jackson, Archt., Chandler Bldg.; Moeller & Wellbacher, Contrs.; electrical work not let.

Va., Lynchburg—Madison Avenue Heights Methodist Church will erect addition for Sunday school; brick; 2 stories and basement; \$15,000; E. Linthicum, Contr.

City and County.

Va., Richmond—Fire Alarm and Police Telegraph Station—City, Mr. Meyers, Director of Safety, will erect \$31,000 fire alarm and police telegraph station, Monroe Park; 1 story; 60x40 ft.; wood floors; concrete foundation; slag roof; hot water heat; electric lights; Carneal & Johnston, Archts., Chamber of Commerce Bldg.; J. E. Atkinson, Contr., Lyric Bldg. (Lately noted.)

Dwellings.

Ala., Huntsville—Merrimac Manufacturing Co. will erect 80 operatives' dwellings; Wm. P. Dilworth, Contr. (Lately incorrectly noted under N. C., Huntsville.)

D. C., Washington—E. M. Hoone will erect 2 dwellings, 3540 and 3700 Albemarle St., N. W.; \$15,000; 2 stories; brick; Allan E. Walker, Contr.

Fla., Jacksonville—Dr. R. P. Taylor will erect \$12,000 residence on Park St., between Aberdeen and Seminole Sts.; 2 stories; brick veneer; Chas. J. Davis, Jr., Contr.

Ga., Augusta—Mayor Julian M. Smith will erect Italian type residence, Kings Way, The Hill; \$20,000; hollow tile and stucco; slate roof; hot water heat; wrought iron; tile sun room and porches; 10 rooms and 2 baths; Willis Irvin, Archt., Lamar Bldg.; Sibert & Robinson, Contrs. (Lately noted.)

La., New Orleans—J. Hubert will erect 2 single bungalows, Nelson and Clay and St. Bernard and Serantine Sts.; total \$11,000; Bordages & Tierney, Contrs.

La., New Orleans—Frank McDonald will erect \$11,000 double residence, Gen. Pershing St., near Clara St.; 2 stories; 40x42 ft.; Spanish type; Ed. L. Markel, Archt.-Contr., 4414 Baronne St.

Md., Baltimore—John E. Magers, 461 Calvert Bldg., will erect 2-story fireproof dwelling and garage, Lyndale Ave., north of Liberty Hts. Ave.; 33x41.6 ft., and 18x20 ft.; brick; hot water heat; \$12,000; H. C. Aiken, Archt., 4115 Ridgewood Ave.; Henry A. Knott & Co., Contrs., 2101 N. Calvert St. (Lately noted.)

Mo., Columbia—Presbyterian Church will erect manse; 2 stories; brick; Krumm Contracting Co., Contr., Pilot Grove.

N. C., Charlotte—R. J. Summerrow and others will erect 40 two-family tenant houses, Davidson and Alexander Sts., between 3rd and 4th Sts.; total \$40,000; 6 rooms; Wimbish & Bassett, Contrs.

N. C., Charlotte—T. E. Ray will erect \$15,000 residence, 1900 East Way; brick veneer; 8 rooms; J. A. Williamson, Contr.

S. C., Converse—Clifton Mfg. Co., Clifton, will erect 50 additional tenement houses at No. 3 Cotton Mill; Fiske-Carter Construction Co., Contr., Spartanburg.

S. C., Greenville—C. T. Gentry will erect \$15,500 residence, Mills Ave.; 2 stories; brick veneer; 50x43 ft.; Day & Klockler, Contrs.

Tex., Paris—Horace S. High let contract to erect \$10,000 brick veneer residence.

Va., Lynchburg—Mrs. Jas. A. Anderson will erect English type residence, Catalpa Dr., Peakland Pl.; 2 stories and basement; 66x40 ft.; brick and stucco; shingle roof; Stanhope S. Johnson, Archt.; contract let.

Va., Lynchburg — Randolph Marshall will erect Colonial type residence, Catalpa Dr., Peakland Pl.; 2 stories and basement; 64x38 ft.; brick; slate roof; Stanhope S. Johnson, Archt.; contract let.

Va., Richmond—V. C. Perkins, Victor and Stuart Aves., will erect 2 brick dwellings; 2 stories; 27x36x22 ft.; slate roofs; wood floors; concrete foundations; \$9000; plans by owner; G. E. Lockname, Contr., 18 E. Main St.

Government and State.

Tenn., Nashville—Memorial and Capitol Annex—Memorial Comsn., Hill McAllister, Chmn. Bldg. Comm., will erect building for Tennessee War Memorial and Capitol Annex; Indiana limestone; 400x150 ft.; 4 stories; hardwood and concrete slab floors; Barrett roof; hollow fireproof and interior tile; metal door; mail chutes; ornamental terra cotta; wire glass; Otis elevators; cost \$1,240,000; Edw. Dougherty, 900 Stahlman Bldg., Nashville, and McKim, Mead & White, 101 Park Ave., New York, Asso. Archts.; A. J. Krebs Co., Contr., Atlanta; contracts for heating, lighting and plumbing not awarded. (Lately noted.)

Hospitals Sanitariums, Etc.

Ala., Greenville—Dr. L. V. Stabler will erect hospital on Oak St.; H. P. Jones, Contr. (Lately noted.)

Ky., Louisville—St. Anthony's Hospital will erect \$250,000 addition at Barrett Ave. and St. Anthony's Pl.; 4 stories and basement; 100 beds; include training school for nurses, maternity department, ambulance department, etc.; J. T. Russell & Co., Contrs.

Hotels.

Fla., DeLand—DeLand Hotel Co. will erect \$150,000 hotel; 4 stories; brick and hollow fireproof tile; concrete and wood floors; ornamental terra cotta; built up and tile roof; electric elevator; W. J. Carpenter, Archt., St. Petersburg, Fla., and Pittsburgh, Pa.; C. M. Emerson Co., Contr., Brooksville, Fla. (Lately noted.)

Fla., Lakeland—Adair Realty & Trust Co., Atlanta, Ga., is financing \$700,000 hotel, Main St. and Massachusetts Ave.; 200 rooms and roof garden; Spanish design; Hentz, Reid & Adler, Archts.; Senter & Adair Co., Contrs., both Atlanta.

Miscellaneous.

Ky., Ashland—Fair—Tri-State Fair & Racing Assn., Thos. B. Cromwell, Secy., will construct 608 horse stalls at Raceland; \$32,000; 35 carloads of lumber required; S. F. McCormick, Contr., Lexington; also construct grandstand; steel and concrete; Pan-American Bridge Co., Contr., Newcastle, Ind.

Tenn., Chattanooga—Home—Lewis Mission will erect \$10,000 building; W. H. Sears, Archt.; Mark Wilson & Co., Contrs.

Va., Petersburg—Grandstand — Harrison Construction Co. has contract to construct grandstand at McKenzie Park; Dr. Jos. H. Smith, Chmn., Construction Comm. (Lately noted.)

Schools.

Ala., Catherine—School Board will erect building; 6 classrooms and auditorium; Levi Frisbie, Contr., Jackson.

Fla., West Palm Beach—County Board of Public Instruction, Agnes Balard, Supt., will erect high school gymnasium; about \$10,000; E. H. Barto, Contr.

Md., Baltimore—Board of Awards, Mayor Wm. F. Broening, Prest., will erect Hampden-Woodberry School, W. 36th St., between Falls Rd. and Sycamore St.; \$534,437; accommodate 1000; W. W. Emmart, Archt., 1101 Union Trust Bldg.; Chas. L. Stockhausen Co., Contr., Gay and Water Sts. (Lately noted.)

Miss., Carriere—School District Trustees will erect building; 2 stories; 100x114 ft.; brick; 9 classrooms and study hall to accommodate 500; Albert G. Bear, Archt., Wells Fargo Bldg., New Orleans; H. T. Parks, 134 N. Scott St., New Orleans, contr., at \$30,949. (Lately noted.)

N. C., Elon College—Elon College will erect Alamaance Hall to replace administration building lately noted burned; Herbert B. Hunter, Archt., Burlington; Joe W. Stout & Co., Contrs., Sanford. (Lately noted.)

N. C., Smithfield—Johnston County Board of Education will erect 3 schools; \$85,000; 8 classrooms and auditorium; brick; composition roofs; Chas. C. Hook, Archt., Charlotte; Walter Clark, Wilmington.

Tenn., Wartburg—Morgan County Board of Education will erect Central High School; \$43,000; 2 stories; 78x125 ft.; brick; built-up roof; maple floors; steam heat; Manley & Young, Archts., Knoxville; T. J. Fulton, Contr., Oakdale. (Lately noted.)

Va., Lynchburg—Lynchburg College will erect \$75,000 gymnasium; colonial architecture; brick and concrete; swimming pool with spectators gallery; shower baths, filtration plant for pool; gymnasium and athletic director's rooms and offices, equipment storage rooms, lobby, etc.; Stanhope S. Johnson, Archt., Peoples' Bank Bldg.; C. W. Hancock & Sons, Contrs. (Lately noted.)

Va., Petersburg—School Board, F. M. Martin, Supt., will erect 2 schools for colored pupils; \$44,000; Harrison Construction Co., Contr.

Stores.

D. C., Washington—Albert Carry will repair building at 1223-29 G St., N. W.; \$11,500; Meitler & McKay, Contrs., Oxford Bldg.

Ga., Augusta—Central Investment Co. will remodel Harrison Building damaged by fire; \$25,000; C. H. Van Ormer, Contr. (Lately noted.)

Miss., Grenada—A. G. Roane will erect 3 brick stores at Depot and Doak Sts.; contract let.

N. C., Lexington—Robt. L. Leonard Estate will remodel group of brick stores; W. Lee Harbin, Contr.

S. C., Anderson—P. L. Tate will rebuild store on S. Main St.; Barton Lumber Co., Contr.

Tex., Dallas—Lang Floral Co. will erect \$45,000 store and apartment building, Haskell and McKinney Aves.; Spanish type; 100x60 ft.; 4 stores on first floor; four 5-room apartments on second; tile baths; oak floors; J. Allen Boyle Co., Archt.-Contr. (Lately noted.)

Tex., Del Rio—Roach-McLymont Dept. Store will remodel building and erect 1-story addition; roof garden; L. Harrington & Co., Archts., San Antonio; H. M. Hutchinson, Contr., Del Rio. (Lately noted.)

Tex., El Paso—Geo. G. Sauer will erect 2-

story reinforced concrete building on Juarez Ave.; \$75,000; Anderson Bros., Contrs.

Warehouses.

D. C., Washington—Wardman, Bones, Hobbs & Rheem will erect \$150,000 warehouse at 60 Florida Ave., N. E.; brick; Wardman Construction Co., Contr., 1430 K St., N. W.

La., New Orleans—Board of Port Comms., J. H. Walsh, Gen. Mgr., 200 New Court Bldg., will erect Seventh Street Shed; H. Brockman, 1525 Bena St., contr., at \$21-473 for woodwork. (Lately noted.)

Md., Baltimore—Canton Co., Commerce and Water Sts., will receive bids until March 7 to erect warehouse, Pier 8, Canton; 100x500

ft.; reinforced concrete and brick; alternate bids for steel; plans by Sanford Brooks Co., Commerce and Water Sts.; following contractors estimating: West Construction Co., American Bldg.; Geo. A. Fuller Co., American Bldg.; Northeastern Construction Co., Lexington Bldg.; Consolidated Engineering Co., Calvert Bldg.; Whiting-Turner Construction Co., Stewart Bldg.; M. A. Long Co., 19 Guilford Ave.; Morrow Bros., Fidelity Bldg.

N. C., Gastonia—Gastonia Bonded Warehouse will erect addition on W. Airline Ave.; \$40,000 to \$50,000; 1 section, 40x170 ft.; other 40x130 ft.; both 4 stories; slow burning construction; 20,000 bales capacity; H. B. Patillo, Contr.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Automobile Tire Making Mch. and Materials.—Knoxville Rubber Co., W. M. Simpson, E. Jackson Ave., Knoxville, Tenn.—To purchase mch. and materials for making all kinds of cord and fabric tires, also wrapping paper, rubber cement, etc.

Bag Machinery.—Alex. M. Robinson (Mchy. Dealer), Georgetown, Ky.—To purchase bag mch. to make bags for rice, etc., used equipment.

Bakery Equipment.—J. A. Daniel, Mocksville, N. C.—Prices on bakery equipment.

Boiler.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until March 9 to furnish one standard vertical high pressure steel tubular boiler, approx. 22 to 25 H. P., working pressure 100 lbs. complete with base plate, grates, doors and sheet iron cone shaped hood; one automatic feed water injector for use in connection with boiler; delivery Post Quartermaster, Marine Barracks, Norfolk, Va.; Sch. 337.

Boiler (Steam Heating).—Big Jack Co., Inc., Bristol, Va.—To purchase one portable return tubular, Scotch marine or economic type boiler for steam heating, about 40 H. P.

Boilers.—Wilson-Hock Co. (Mchy Dealers), City Point, Va.—Dealers prices on 30 or 40 H. P., second-hand boiler for 110-lb. steam pressure, complete with all fittings except stack, Scotch marine economic or return tubular boiler desired; also 125 to 150 H. P. boilers for 135 to 150-lb. pressure, horizontal, return tubular, complete with fitting.

Braces.—See Electrical Equipment.

Brass (Sheet and Cylinder).—Norton W. Hart, Warrenton, Ga.—To purchase sheet brass and large cylinders of brass.

Brick.—Guilford Lumber Mfg. Co., 524 Ashe St., Greensboro, N. C.—To purchase brick in carload lots, f. o. b. Greensboro.

Buggies (Lumber).—Carter's Production Works, Oliver Carter, Mgr., 210 S. Front St., Wilmington, N. C.—To purchase second-hand lumber buggies.

Building Materials.—J. A. Daniel, Mocksville, N. C.—Prices on material for construction of 3-story, brick or tile, 22½x90 ft. building; including metal front.

Cabinets.—Board of Education, C. E. Ackley, Supt., Ashland, Ky.—See School Equipment.

Cable (Lead Covered).—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers price on 150 ft. of 400,000 C. M., 600 volt, single conductor, lead-covered cable.

Cars (Log).—Carter's Production Works, Oliver Carter, Mgr., 210 S. Front St., Wilmington, N. C.—36-in. gauge log cars.

Cars (Three Deck, Dryer).—Arkansas Brick & Tile Co., Little Rock, Ark.—To purchase 230 three-deck dryer cars, 24-in.

gauge, roller bearings; state measurements over all and height of the first, second and third decks; equipment to dry brick and hollow tile; state price f. o. b. factory, weight and freight rate to Malvern, Ark.

Cement.—Guilford Lumber Mfg. Co., 524 Ashe St., Greensboro, N. C.—To purchase cement in car load lots; f. o. b. Greensboro.

Crane.—The Harvey Co., 113 South St., Baltimore, Md.—To purchase 8 wheel, 20-ton 50 ft. boom crane; state shop number and full particulars; S. C. delivery.

Cross Arms.—See Electrical Equipment.

Desks.—Board of Education, C. E. Ackley, Supt., Ashland, Ky.—See School Equipment.

Electrical Equipment.—See Plumbing, etc.

Electrical Equipment.—J. A. Leindecker, Propr., Gulf State Land and Lumber Co., Coushatta, La.—To purchase quantity of No. 8 and No. 10 R. C. copper wire for electric current; 100-6 ft. four pin cross arms; 300 insulators and 100 braces; second-hand equipment.

Electric Lighting Plant.—Geo. S. Filler, Paw Paw, W. Va.—Names and addresses of mfrs. of private lighting plants, similar to Delco light.

Electrical Work.—Board of Education, J. L. Foust, Supt., Owensboro, Ky.—Bids until March 1 for electrical work on high school to include wiring for lighting, bell, clock and telephone systems; plans and specifications at office A. F. Hussander, Archt., 25 N. Dearborn St., Chicago.

Electrical Work.—L. B. Jackson & Co., Asheville, N. C.—Correspondence with contractors who would be interested in bidding on electrical work for 12-story office building, 27x61 ft.

Elevator (Freight).—Big Jack Co., Inc., Bristol, Va.—To purchase second-hand or used electric elevator for freight, about 1 to 2-ton capacity.

Engine (Drag).—North Carolina Granite Corp., Mt. Airy, N. C.—To purchase two cylinder drag engine operated by steam, drum to reel from 1500 to 2000 ft. of 1-in. steel cable, to drag stones of 10 to 50 tons on wooden rollers; prices f. o. b. Mt. Airy or if factory, state weight and freight rate.

Engine and Generator.—Box 187, Memphis, Tenn.—60 KVA, A. C., 240 volt, 60 cycle generator, direct connected to standard automatic engine; one 180 KVA. same as above connected to four valve or uniflow engine; good condition.

Engines (Gasoline), etc.—Shamrock Oil Co., Waxahachie, Tex.—To purchase 1¼ H.P. gasoline engines and pumps for pumping shallow oil wells.

Excelsior Machinery.—J. L. Townsend,

Manquin, Va.—Prices on new and second-hand excelsior mchy.

Fans (Exhaust).—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers prices on 16 or 18 motor-driven exhaust fans, motor to be single phase, 60 cycle, 110 volts.

Flooring (Wood).—Board of Awards, Richard Gwinn, Register, City Hall, Baltimore, Md.—Bids until March 7 for new wood flooring in rooms on first and second floors in male insane building, Bay View Asylum; J. F. Crowther, Inspector of Buildings.

Flour Plant Machinery.—Laurel Falls Flour Mills, Henry D. George, Lexington, S. C.—Machinery for 100-bbl. flour plant complete.

Garbage Equipment (Collection).—Lon H. Barringer, City Mgr., Charleston, W. Va.—To correspond with companies supplying equipment for free collection garbage system.

Gas Mains.—See Street Work, etc.

Generator (Electric).—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers prices on 50 to 75 K. W., 3 phase, 60 cycle, 2300 volt belted generator.

Generators.—See Motors and Generators.

Governors (Steam Engine).—Vernon D. Wheeldon, Prest., Engineering Service Corp., 66 Court St., Hampton, Va.—To purchase two Jahn's steam engine governors for attaching to C. & G. Cooper Corliss engine.

Hangars, etc.—Navy Dept., Bureau of Yards and Docks, Washington, D. C.—Bids until March 14 for two hangars, including concrete foundations and floors, steel frames, steel sash and doors, asbestos covered metal and built up roofing, also reinforced concrete pavement and road, cast-iron and terracotta piping at Marine Flying Field, Quantico, Va.

Heating (Steam).—Trustees Mullins High School, E. T. McMillan, Secy., Mullins, S. C.—Bids until March 14 on steam heating for high school building; W. D. Harper, Archt., Florence, S. C.

Heating Plant.—L. B. Jackson & Co., Asheville, N. C.—Correspondence with contractors who would be interested in bidding on heating plant for 12-story office building, 27x61 ft.

Heating Plant.—State Bond Improvement Comsn., Box 636, Jackson, Miss.—Bids until Mch. 2 to furnish material and work in connection with construction of plant for steam heating at Mississippi State College for Women at Columbus; f. o. b. Columbus for following: 2 cross drum type water tube boilers, approx. 250 h. p. each; 3 hand fired stokers with hopper fronts for 250 h. p. boilers; two sets of rotating soot blowers for vertically baffled B. & W. boilers and one set of hollow stay bolt type soot boilers for horizon-

tally baffled marine type boilers; 1 open type feed water heater; 1 outside-packed-plunger ram pattern boiler feed pump; 1 steel breaching for boilers.

To construct the following: 1 radial brick chimney 6x125 ft.; concrete work including foundation for chimney, boiler house and boilers, floor for boiler house, trestle and bin for coal, pump pit and approx. 1000 lin. ft. of tunnel for steam heating main, totalling 600 cu. yds.; demolishing walls and roof of present boiler house and re-erecting same according to plans; unloading 2 new boilers and breaching and moving one 250 h. p. boiler from present location to new house, erecting 3 boilers on foundations, setting complete, including installation of stokers and soot blowers and erect breaching; furnish and erect pipe, etc., for steam and hot water in boiler house and tunnel; overhauling steam piping in old building; construct earth fill for coal spur; taking up old track and relaying rails on new spur; further information on application; bids changed from Feb. 24.

Hooks (Brass).—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until March 5 to furnish 200,000 brass hooks and washers for leggings; delivery Depot Quartermaster, Philadelphia, Pa.; Sch. 334.

Ice Plant.—Citronelle Light & Power Co., Citronelle, Ala.—To correspond with mfrs. of equipment for 5 to 10-ton artificial ice plant.

Ice Plant.—J. L. Reeves, Prest., Business Men's Club, Walton, Ky.—To correspond with mfrs. of ice making machines, including engines and all necessary equipment for ice plant.

Insulators.—See Electrical Equipment.

Jail Equipment.—H. G. Smith, Garza County Judge, Post, Tex.—Bids until Mch. 5 to furnish jail equipment for the Garza County courthouse; plans with Guy A. Carlander, Archt., Amarillo, Tex.

Iron (Railroad).—Carter's Production Works, Oliver Carter, Mgr., 210 S. Front St., Wilmington, N. C.—To purchase railroad iron.

Lathe (Handle).—R. P. Johnson (Mchy. Dealers), Wytheville, Va.—Dealers' prices on Nos. 1, 2 or 11 second-hand Ober handle lathe, with sander suitable for making handles.

Lathes.—W. O. Arzinger Machinery Co., Birmingham, Ala.—14 to 26-in. heavy duty H. S. from 8 to 14-ft. beds.

Levee Construction.—Yazoo-Mississippi Delta Levee Commrs., Clarksdale, Miss.—Bids until March 13 for the enlargement of Trotter's Emergency loop, Sec. 53 and 54; containing approx. 250,000 cu. yds.; W. L. Head, Chief Engr.

Lighting Fixtures (Street).—H. C. Brown, Clermont, Fla.—Data and prices on street lighting fixtures of different types.

Lime (Building).—Guilford Lumber Mfg. Co., 524 Ashe St., Greensboro, N. C.—To purchase building line in car load lots, f. o. b. Greensboro.

Locomotive.—Carter's Production Works, Oliver Carter, Mgr., 210 S. Front St., Wilmington, N. C.—One 15-ton 36-in. gauge locomotive.

Lumber.—H. L. Washburn, Harris County Auditor, Houston, Tex.—Bids until March 5 for two car loads of lumber, as per specifications with county Engrs.

Lumber, etc.—Stewart & Co., Munfordville, Ky.—To purchase dressed pine lumber, probably car shingles also.

Matcher (Box Board).—Duncan Machinery Co. (Mchy. Dealers), Box 265, Knoxville,

Tenn.—Dealers' prices on used or rebuilt American modern box board matcher; send complete description, etc.

Mattress Making Machinery.—Chas. P. Lynch, Hotel Gore, Clarksburg, W. Va.—To correspond with mfrs. of mattress making mchy.

Mechanical Equipment.—Trustees Mullins High School, E. T. McMillan, Secy., Mullins, S. C.—Bids until March 14 on mechanical equipment for high school building. W. D. Harper, Archt., Florence, S. C.

Miller (Universal).—W. O. Arzinger Machinery Co., Birmingham, Ala.—No. 3 or No. 4 Universal miller.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until March 14 to furnish: Machine bolts, brass cocks; special bronze; yellow metal; sheet lead; plate glass; melting-furnace crucibles; metallia and steel measuring tapes; whitewash and foundry brushes; bookbinding and harness leather; leather belting; mop handles; calcium chloride; grit soap; typewriter ribbons; flax twine and sandpaper. Blank forms and information (Circular 2314) on application to offices of Panama Canal; Asst. Purchasing Agts. at Fort Mason, San Francisco, Cal.

Motor.—G. M. Tucker, Contr., Monroe, N. C.—Prices on second-hand 50 H. P., 3 phase, 220 volt motor with starter and base complete.

Motors.—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers prices on 75 H. P., 3 phase, 60 cycle, 220 volt, slip ring motor with starting equipment, 900 R. P. M., 3.5 and 10 H. P., 3 phase, 60 cycle, 220 volts, squirrel cage motors.

Motors and Generators.—W. O. Arzinger Machinery Co., Birmingham, Ala.—Large A. C. motors and generators.

Oil Burning Devices.—Snyder Pump & Well Co., Inc., 1310 E. Main St., Richmond, Va.—Data and prices on oil burning devices for use in conjunction with house heating appliances in lieu of other fuels, either as single or battery unit for ten residences.

Oil Well Machinery, etc.—Shamrock Oil Co., Waxahachie, Tex.—Catalogs and prices from mfrs. of oil well mchy. and supplies.

Paper (News Print).—J. V. Tackaberry, 1206 American Exchange National Bank Bldg., Dallas, Tex.—Prices on news print paper in car and larger lots, delivery Dallas and Houston, Tex.; to correspond with mfrs. both in U. S. and Canada.

Paving.—Richard Gwinn, City Register, Baltimore, Md.—Bids until March 7 to grade, curb and pave with sheet asphalt on concrete base, 22,805 sq. yds. Contract No. 231-OANA.

Paving.—City of Wichita Falls, Tex., W. B. Horner, Mayor.—Bids until March 12 for grading and paving certain streets with either sheet asphalt or cement concrete; work embraces approx. 17,500 sq. yds. pavement, 11,000 lin. ft. of combined concrete curb and gutter, storm drains and accessories; plans with The Ludlow Engineers, Engr., Winston-Salem, N. C.

Paving.—City of Burlington, N. C., Earl D. Cline, Mayor.—Bids until March 5 for paving Lamar, Travis and Sixth Sts. with either warrenite, bitulithic or 3-in. vertical fibre brick or 5-in. concrete base; involving 9267 sq. yds.; 10,442 sq. yds. excavation; 2884 ft. curb and gutter; F. M. Rugely, City Engr.

Paving.—City of Greensboro, N. C., P. C. Painter, Mgr.—Bids until March 2 for rough

grading certain streets; work involving 12,000 cu. yds.

Paving.—Treasury Dept., Supvg. Archt.'s office, Washington, D. C.—Bids until March 5 for building walks on site of W. S. Veteran Hospital, Augusta, Ga.

Photostatic Machine.—Sheffield Abstract Co., Sheffield, Ala.—To correspond with mfrs. of or dealers in photostatic machine and supplies.

Pipe.—Carpenter & Petrie, Inc., 519 Citizens Bank Bldg., Norfolk, Va.—To purchase two pieces of used, extra heavy wrought pipe, 9 or 10-in. diam. and about 20 to 22 ft. long, without flanges.

Planer.—W. O. Arzinger Machinery Co., Birmingham, Ala.—72 to 86-in. x 14 to 18-ft. fourhead planer.

Planer and Matcher.—Duncan Machinery Co. (Mchy. Dealers), Box 265, Knoxville, Tenn.—Dealers' prices on rebuilt and second-hand 20 to 24-in. double surfacer planer and matchers; Fay and Eagan or similar make.

Plumbing.—L. B. Jackson & Co., Asheville, N. C.—Correspondence with contractors who would be interested in bidding on plumbing for 12-story office building, 27x61 ft.

Plumbing, etc.—Trustees Mullins High School, E. T. McMillan, Secy., Mullins, S. C.—Bids until March 14 on plumbing and electrical work for high school building; W. D. Harper, Archt., Florence, S. C.

Power Plant.—Shamrock Oil Co., Waxahachie, Tex.—To purchase power plant with 10 or 15 H. P. gasoline engine to develop 20 or 25 wells.

Pulverizer.—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers prices on pulverizer suitable for making agricultural limestone; American ring pulverizer; No. 18 to 24 desired.

Rails.—Nora Coal Corp., Jas. W. Gerow, Prest., Nora, Va.—To purchase sufficient quantity of 65 to 75-lb. relaying steel rails together with necessary angle bars, bolts, spikes, frogs and switches to construct about 3½ mi. of track.

Resaw (Circular).—R. P. Johnson (Mchy. Dealers), Wytheville, Va.—Dealers' prices on 24 to 30-in. circular resaw.

Reservoir.—City of Tampa, Fla., H. T. Davis, Dir. of Finance.—Bids until March 12 for construction of one reinforced concrete reservoir of 600,000 gal. capacity to be constructed at Municipal Water Works; plans, etc., on file at office of Director of Public Utilities.

Road Construction.—State Highway Commission, Richmond, Va.—Bids until March 14 to construct 9.7 mi. road between Suffolk and Franklin.

Road and Bridge Construction.—W. F. Ford, County Judge, El Dorado, Tex.—Bids until March 6 for improvements of certain work in Highway 4-E, in Schleicher County; grubbing, clearing, asphalt construction, draining, etc.; detailed plans and specifications with J. L. Neill, County Engr.; bids submitted for work as whole or for grading and surfacing, drainage structures and bituminous topping separate.

Road and Bridge Construction.—State Highway Dept., 413 N. Tenth St., Richmond, Va.—Bids until March 14 for construction of: Proj. S-155 Rt. 2—1.5 mi. soil road in Fluvanna county, 16,750 cu. yds. excavation, 132 lin. ft. V. C. pipe, 3003 lbs. reinforcing steel, 1050 lin. ft. wood guard rail; Proj. S-209 Rt. 19—6.5 mi. in Fluvanna and Goochland counties, 58,534 cu. yds. excavation, 776 lin. ft. V. C. pipe, 584 lin. ft. C. I. pipe, 6984 lbs. reinforcing

steel, 4196 lin. ft. wood guard rail; Proj. S-209 Rt. 19, bridge over Bird Creek, 153 ft. long, 5900 lbs. structural steel, 9822 lbs. reinforcing steel, concrete, etc.

Proj. F-160 B and C, Rt. 5-9.7 mi. 18 ft. concrete road in Isle of Wight and Nansemond county, 29,144 cu. yds. excavation, 118,977 cu. yds. borrow, 328 lin. ft. V. C. or C. I. pipe, 414 lin. ft. C. I. pipe, 13,768 lbs. reinforcing steel, 5300 lin. ft. wood guard rail, concrete, etc.; 38 ft. bridge over Kingsale Swamp, 9285 lbs. reinforcing steel, 49 cu. yds. of A and 77 cu. yds. of B concrete; Proj. S-265 Rt. 11-X, 5.5 mi. of 16 ft. 8-in. bitulithic macadam road in Buchanan county, 68,975 cu. yds. excavation, 2000 cu. yds. borrow.

Proj. S-287 Rt. 11-Z, 4.8 mi. 16 ft. 8-in. bitulithic macadam road in Wise county, 1572 lin. ft. of V. C. and 708 lin. ft. of C. I. pipe, 63 cu. yds. concrete, 122,013 cu. yds. excavation, 6587 lbs. reinforcing steel, 4900 cu. yds. rubble masonry, 12,090 lin. ft. guard rail; Proj. S-2, 14 Rt. 2-6.6 mi, soil road in Fluvanna county, 38,105 cu. yds. excavation, 1280 cu. yds. borrow, 808 lin. ft. of V. C. and 208 lin. ft. C. I. pipe, 39 cu. yds. B concrete, 630 ft. of guard rail; Proj. S-214, Br. Rt. 2, bridge over Cary's branch, Sta. 170, three 30-ft. beams, spans, 152 cu. yds. A concrete, 28,680 lbs. reinforcing steel.

Proj. F-157, Rt. 9-4.3 mi. 18 ft. 8-in. concrete road in James City county, 61,146 cu. yds. excavation, 3745 cu. yds. borrow, 4880 lin. ft. V. C. and 234 lin. ft. C. I. pipe, 497 cu. yds. of A and 23 cu. yds. B concrete, 34,967 lbs. reinforcing steel; Proj. F-271, Rt. 11-5.08 mi. of surface treated macadam road in Tazewell and Russell county; Proj. F-178, Br. Rt., 1, 122 ft. bridge over Grassy Creek in Mecklenburg county, 84,000 lbs. structural steel, 2410 lbs. reinforcing steel, 51.7 cu. yds. A concrete, 12,420 ft. B. M. lumber, 40 cu. yds. riprap, etc., plans, etc., from State Highway Dept., Richmond, and Dist. Officers as follows, S-155 and S-214 Culpeper; S-209 and F-178, Richmond; 160 B and C and F-157, Suffolk; S-265, S-287 and S-271, Bristol; Tazewell Ellett, Asst. Engr.

Road Material.—State Highway Dept., Atlanta, Ga., John N. Holder, Chmn. State Highway Board—Bids open March 1 to furnish approx. 485 barrels of cement used in construction of Fed. Aid Proj. No. 323 in Richmond-Columbia Counties; price bid to be f. o. b. Martinez and Evans, Ga.; W. R. Neel, State Highway Engr.

Road Oiling.—State Road Comsn., 610 Garree Bldg., Baltimore, Md.—Bids until March 6 for oiling 5 sections of highway, requiring approx. 576,127 gals. as follows: 24.76 mi. in Cecil, Queen Anne, Somerset, Talbot, Wicomico and Worcester Counties, Dist. No. 1 and 2; 35.10 mi. in Montgomery and Prince George Counties, Dist. No. 3; 111.01 mi. in Carroll, Frederick, Howard and Montgomery Counties, Dist. No. 5; 60.45 mi. in Garrett, Allegany, Frederick and Washington Counties, Dist. No. 6; 57.35 mi. in Anna Arundel, Baltimore and Harford Counties, Dist. No. 4 and 7.

Rope (Wire).—Duncan Machinery Co. (Mchy. Dealers), Box 265, Knoxville, Tenn.—3000 ft. of $\frac{3}{8}$ and $\frac{1}{2}$ -in. wire rope, suitable for going over a sheave wheel for pulling up coal cars; used rope preferred.

Sash (Steel).—Guilford Lumber Mfg. Co., 524 Ashe St., Greensboro, N. C.—To purchase steel sash.

Saw Mill Outfit.—E. V. Long, 142 N. Laurence Ave., Wichita, Kan.—To purchase saw mill outfit.

School Equipment.—Board of Education, C. E. Askley, Supt., 26th and Lexington Sts., Ashland, Ky.—Bids f. o. b. Ashland until March 15 for following equipment; 1300 auditorium seats, 480 pupils' desks, 32 teachers' desks, 2 principals' swivel chairs, 6 office side chairs, 2 office settees, 2 speakers' tables (auditorium), 6 speakers' chairs (auditorium), 2 metal filing cabinet (letter size), 2 filing cabinet (letter size), 2 filing cabinet (card size), 4 sand tables, 48 domestic science tables, 2 domestic science demonstration tables, 2 domestic science supply cabinets, 40 manual training benches, 2 manual training instructors' benches, 2 glue and staining benches, gym lockers, window shades.

Seating.—Board of Education, C. E. Askley, Supt., Ashland, Ky.—See School Equipment.

Separator.—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers prices on 7-in. steam separator suitable for 150 lbs. pressure, equipped with companion flanges.

Sewer Construction.—City of Charleston, W. Va., Ernest Bruce, Engr.—Bids until March 2 for furnishing all material and labor and constructing sewer in Burlew St.; work include approx. 425 lin. ft. of 15-in. sewer.

Sewer Construction.—City of Cameron, Texas, J. B. White, Mayor—Bids until March 1 for furnishing all material, equipment and labor for constructing certain sewer extension improvements; plans on file at office of A. F. Mitchell, Engr., Cameron.

Sewer Construction.—City of Harrisonville, Mo., C. A. Burke, Clk.—Bids opened Feb. 28 for construction of sewer system; W. B. Rollins & Co., Engrs. in charge, Kansas City, Mo.

Sewer Main.—Street Work, etc.

Shovel (Steam).—Chattahoochee Brick Co., H. L. English, V. P., 701 Fourth National Bank Bldg., Atlanta, Ga.—Small second-hand steam shovel, $\frac{1}{2}$ -yd. preferred.

Shovel (Steam).—D. C. Elphinstone (Mchy. Dealers), 408 Continental Bldg., Baltimore, Md.—One Erie B steam shovel, caterpillar tread.

Smelter Equipment, etc.—Elestano Mining Co., Inc., 3 Hamilton Row, Hagerstown, Md.—To correspond with mfrs. of mchy. for smelting tin ore, blowers and smelter equipment.

Socks.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until March 2 to furnish 75,000 prs. lightweight woolen socks; delivery to Depot Quartermaster, Philadelphia, Pa.; Sch. 331.

Stacks (Steel).—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers, prices on steel stack, self-supporting for 2000 H. P. boiler.

Stage Fixtures.—See Theater Equipment.

Steamer (Freight and Passenger).—Fort Myers Steamship Co., Fort Myers, Fla.—To purchase freight and passenger steamer for coastwise trade, capacity 100 first-class passengers and 200 to 400 tons freight; good condition; speed not less than 12 knots; draft not over 10 ft. loaded; oil burner preferred.

Street Work, etc.—F. Christman, 35-D, care Dallas News, Dallas, Texas.—Invite bids on following work to furnish material under city specifications: Grading 830 cu. yds. of streets; graveling and rolling street 30x600 ft.; 1260 ft. of 4-ft. cement sidewalk; 1260 ft. of cement curb and gutter; 650 ft. of 6-in. and 450 ft. of 8-in. gas mains; 600 ft. of 6-in. and 450 ft. of 8-in. water mains; 650 ft. of 6-in. sewer main.

Tables.—Board of Education, C. E. Ackley, Supt., Ashland, Ky.—See School Equipment.

Tags (Marking and Shipping).—O. J. Morris Ice & C. S. Bldg. Co., Inc., 82 Ridge Ave., Atlanta, Ga.—To correspond with mfrs. of shipping and marking tags, especially for tagging cotton.

Tanks.—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers prices on 10,000 gal. storage tank made of $\frac{3}{4}$ -in. plate suitable for gasoline, delivery Hopewell, Va.; also 20,000 to 30,000 gal. steel tank mounted on approx. 50-ft. steel tower.

Textile Mill (Cotton).—Chamber of Commerce, Haskell, Tex.—Data and prices on construction of cotton mill.

Textiles.—Depot Quartermaster, U. S. M. C., 1109 St. Broad St., Philadelphia, Pa.—Bids opened Feb. 28 to furnish 1000 yds. of overcoat lining; 1000 yds. green satin lining and 500 yds. scarlet silk lining; further information from Quartermaster, Room 3207 Navy Bldg., Washington, D. C.; Sch. No. 325.

Theater Equipment.—J. A. Daniel, Mocksville, N. C.—Prices on theater equipment, including stage fixtures, etc.

Towers (Steel).—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers prices on 2 steel towers each 85 ft. high for power transmission line.

Tractors.—D. C. Elphinstone (Mchy. Dealers), 408 Continental Bldg., Baltimore, Md.—Two 10-ton Holt tractors, good condition.

Transformer.—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers prices on single phase 60 cycle, 10 K. V. A. transformers, 2300/110-220 volts.

Undershirts.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until March 5 to furnish 100,000 cotton undershirts; delivery to Depot Quartermaster, Philadelphia, Pa. Sch. 333.

Undertakers Supplies.—P. H. Elkins, The Paragon Press, Silver City, N. C.—To correspond with mfrs. of or dealers in undertaking supplies; prefer those located nearby.

Vibrators (Electric), etc.—Electric Turkish Baths, Mrs. M. Maynard, Mgr., 528 Market St., Jacksonville, Fla.—To purchase vibrators with electrical attachments for applying electricity directly to body, also for violet ray, etc.

Water and Electric Light Improvements.—City of Rayne, La., A. C. Chappuis, Mayor—Bids until March 20 for constructing improvements to water and electric light plant, work consists of furnishing labor, material and equipment of every kind necessary in accordance with plans and specifications, approx. quantities: power house of brick; 200 H. P. or one 300 H. P. oil engine generator unit; one 3 panel or one 2 panel switchboard; one deep well; 750 GPM deep well centrifugal pump and motor; 750 GPM booster pump and motor; air life system for 750 GPM; 750 GPM fire pump and motor as alternate; 16,464 ft. 6 in. Class B, cast iron pipe; 732 ft. 8 in. Class B cast iron pipe specials; 43 Standard fire hydrants; 24-8-8-in. and 6-in. gate valves and boxes; The J. B. McCrary Co., Engrs, Atlanta.

Water Mains.—See Street Work, etc.

Water Main Extension.—City of North Wilkesboro, N. C.—L. S. Pardue, City Clk.—Bids until March 19 for extension to water main to cost approx. \$12,000.

Water Supply and Distribution System.—City of Shamrock, Tex., H. E. Forgy, Mayor. Bids until March 13 for furnishing materials and constructing gravity supply pipe line, distribution system and storage reservoir, approx. quantities as follows: 2600 ft. 4-in. vitrified sewer, 4 concrete wells, 1000 ft. 4-

in. and 10,500 ft. 6-in. cast iron soil pipe, 2700 ft. 6-in. gal. iron, 63,500 ft. 6-in. wood or cast iron pipe, 26 air valves, 14,450 ft. 2-in., 5000 ft. 1½-in. 10,100 ft. 1¼-in. gal. iron pipe, 100,000 gal. concrete storage reservoir; alternates bids will be received for furnishing and laying pipe; plans, etc., on file at office of City Secy., also at office of J. D. Trammell, Consult. Engr., 511 Wright Bldg., Tulsa, Okla.

Water Works Improvements.—City of Roxboro, N. C.—Bids until March 21 for developing new source of water supply, including following work: laying 20,000 ft. of 12-in. cast iron, B & S water pipe; building concrete and brick filter plant and pumping station; concrete reservoir and earth dam with masonry spillway; furnish and erect filter equipment; furnish and install one 500 G. P. M. centrifugal pump with electric motor and one 500 G. P. M. centrifugal pump with gas engine drive; clearing impounding reservoir site of 60 acres; plans at office of Mayor and The Ludlow Engineers, Engr., at Winston-Salem.

Water Works Improvements.—City of Lenoir, N. C., V. D. Guire, Mayor—Bids until March 2 for furnishing approx. 20,500 lin. ft. of 8-in. Class B, cast iron Bell and spigot pipe; also ten 8-in. gate valves, eight 4-in. blow-off valves, eight blow-off specials, 12 air valves, 16,000 lbs. pig lead and 600 lbs. oakum, one 8-in. and one 10-in. ventur meters; specifications, etc., from Mees & Mees, Consult Engrs., Charlotte, N. C.

Wheel (Water).—Wilson-Hock Co. (Mchy. Dealers), City Point, Va.—Dealers prices on water wheel suitable for driving 60 to 80-H. P. machinery with necessary rigging.

Woodworking Machinery.—J. L. Townsend, Manquin, Va.—Prices on new and second-hand wood-working mchy.

Wrench (Steel).—John C. Henry, Greenville, S. C.—To contract for mfr. of newly patented wrench made of single piece of solid steel or part steel and other hard metal.

Financial News

New Financial Corporations.

Ala., Huntsville—Huntsville Building & Loan Co., incptd. with Solon L. Whitten, Prest.-Mgr. and Raphael Semmes, Treas.

Ala., Jefferson—Argo Investment Co., incptd. by A. Latady, W. E. Towles and others.

Ala., Talladega—McConnell Boynton Finance Co., incptd. by L. J. McConnell, T. D. Boynton and others.

Fla., Hollywood—Hollywood State Bank, capital \$15,000, incptd. with J. W. Young, Prest.; F. O. VanDeren, Vice-Prest.

Fla., Orlando—Geo. W. Chance Insurance Agency, capital \$15,000, incptd. with Geo. W. Chance, Prest.; John L. Mimbish, Vice-Prest.

Fla., Tampa—Merchant and Mechanics Bank capital \$50,000, incptd. by J. C. Puckett.

Ky., Fort Thomas—Highland Building and Loan Assn., capital \$250,000, incptd. by W. H. D. Wheat, Roland S. Pine, J. M. Schweitzer and others.

Ky., Hazard—Hazard Building & Loan Assn., Morgan Bldg., incptd. with C. W. Napier, Mgr.

Mo., St. Louis—Equitable Loan and Investment Co., capital \$10,000, incptd. by H. J. Stadin, H. J. Brown, J. H. Seidel and others.

N. C., Asheville—Asheville Investment Co., capital \$100,000, incptd. by L. B. Jackson, Charles G. Lee, Fannie B. McCoy.

Okla., Foss—Farmers' State Bank, capital \$15,000, incptd. by J. A. Carlbert, L. R. Carlbert and others.

Okla., Glencoe—Glencoe State Bank, capital \$10,000, incptd. by O. T. McCormack, W. E. Peterson and J. F. Bunn, all of Glencoe.

Okla., Jones—First National Bank of Jones, capital \$25,000, incptd. with H. M. Johnson, Prest. and D. R. Thompson, Cash.

S. C., Rock Hill—Rock Hill Banking Co., capital \$15,000, incptd. with George A. Howell, Jr., Prest.; Lotta G. Howell, Vice-Prest.

Tenn., Kingston Springs—Harpeth Valley Bank, incptd. by Dr. R. E. Harris, A. E. Beard, W. P. Parker, Leo Lilles and W. C. West.

Tex., Corpus Christi—Southwestern Title Guaranty Co., capital \$50,000, incptd. by W. A. Wakefield, Gordon Boone and H. S. Guy.

Va., Norfolk—Heptasophian Building and Loan Assn., and the Norfolk Classified Building Assn., merged as The Citizens Mutual Building Assn., capital \$10,000,000, incptd. with Barton Myers, Prest.; W. T. Curdts, Secy.

Va., Norton—Norton Trust Co., capital \$50,000, incptd. with J. E. Fleming, Prest.; Joseph L. Howard, Secy.

Va., Roanoke—Alexander Brown & Co., capital \$10,000, incptd. with M. S. Battle, Jr., Prest.; Alexander Brown, Secy.

W. Va., Huntington—Cabell Investment Co., capital \$35,000, incptd. by John E. Norman, Stanley K. Coffman, Wilbur A. Meanor, Paul C. Kintzing and others.

New Securities.

Ala., Albany—Street—City will sell \$125,000, 6% bonds March 1. Address The Mayor.

Ala., Birmingham—Improvement—City Commn., sold \$134,000 bonds to Steiner Brothers, of Birmingham, The First National Bank of Bessemer, Ala., and Caldwell & Co., of Nashville, Tenn. (Lately noted.)

Ala., Decatur—School—City, Jas. A. Nelson, Mayor, will sell \$35,000 bonds. (Lately noted.)

Ark., Forest City—Improvement—City plans issuing \$115,000 bonds. Address City Commrs.

Ark., Lockesburg—School—Lockesburg School Bd., Custer Steel, Secy., sold \$18,000 bonds to M. W. Elkins & Co., Little Rock, Ark.

Ark., Springdale—School—Springdale Special School Dist. No. 50, Robert E. Gosnell, Secy., will receive bids until March 5 for \$500,000, 5% bonds.

Fla., Bradentown—Road and Bridge—Maratee County, Robert A. Rolsch, Clk. Bd. of Supvrs., will receive bids until March 15 for \$150,000, 6% bonds.

Fla., Crawfordville—Highway—Wakulla County will receive bids until March 19 for \$100,000, 6% bonds. Address County Commrs.

Fla., Lake Worth—School—Lake Worth contemplates issuing \$20,000 bonds. Address The Mayor.

Fla., Pleasant City—City contemplates issuing \$15,000 bonds. Address The Mayor.

Fla., Punta Gorda—Highway—Charlotte County voted \$200,000 bonds. Address County Commrs.

Fla., Tampa—Water—City will vote March 6 on \$2,650,000 bonds. Address The Mayor.

Fla., Tampa—School—Knights Special School Tax Dist., will vote on \$10,000 bonds. Address J. E. Knights, Supt. of Schools.

Fla., West Palm Beach—Inlet—Lake Worth Inlet Dist., C. H. Ellis, Secy., will receive bids until March 5 for \$275,000 6% bonds. (Lately noted.)

Fla., West Tampa—Municipal—City, James H. Lockhart, City Clk., opened bids Feb. 26 for \$65,000 bonds.

Ga., Rochelle—School—Rochelle School Dist. sold \$60,000, 6% bonds to the Trust Company of Georgia, Atlanta. Address Dist. Trustees.

Ky., Jackson—Water—City sold \$25,000, 6% bonds to First National Bank of Jackson. Address The Mayor.

Ky., Winchester—School—City voted \$150,000 bonds. Address The Mayor.

La., Abbeville—Road—Vermilion Parish Road Dist. No. 2, sold \$500,000, 5½% bonds to a syndicate composed of the Hibernia Securities Co., Inc., Marine Bank and Trust Co., of New Orleans, and Caldwell & Co., of Nashville. Address Police Jury.

La., Elton—Water and Iceplant—City sold \$35,000 bonds to Hibernia Securities Co., of New Orleans. Address The Mayor.

La., Jennings—School—Jefferson Davis Parish School Dist., W. P. Arnett, Secy. School Bd., will receive bids until April 5 for \$78,000, 6% bonds.

La., Jonesville—School—Catahoula Parish School Bd., H. W. Wright, Secy., sold \$75,000, 6%, \$1000 denom. bonds to M. W. Elkins & Co., Little Rock, Ark.

La., Opelousa—Road—St. Landry Parish sold \$37,000, 5% bonds of Road Dist. No. 13, to M. W. Elkins & Co., of Little Rock, Ark. Address Police Jury.

La., Slidell—School—St. Tammany Parish voted \$85,000 bonds. Address Police Jury.

Md., St. Michaels—Street, Light, Water—City will receive bids until March 7 for \$50,000 bonds. Address The Mayor.

Miss., Bay St. Louis—Roads and Bridge—Hancock County, Bd. of Supvrs., A. A. Kergosien, Clk., will receive bids until March 5 for \$400,000, 5% bonds.

Miss., Belzoni—Road—Humphreys County, Bd. of Supvrs., A. R. Hutchens, Clk., will receive bids until March 5 for \$175,000, 6% bonds. Address County Commrs.

Miss., Crystal Springs—School—City will vote March 16 on \$85,000 bonds. Address The Mayor.

Miss., Crystal Springs—Sewer—City sold \$15,000 bonds to The Merchants Bank and Trust Co. of Jackson, Miss. Address The Mayor.

Miss., Gulfport—School—City sold \$175,000 bonds to the Canal Commercial Trust & Savings Bank, Sutherland, Barry & Co., Inc., and the Whitney-Central Trust Co., of New Orleans. Address The Mayor.

Miss., Jackson—Street—City sold \$50,000, 5% bonds to Caldwell & Co., Nashville, Tenn. Address The Mayor.

Miss., Lake Cormorant—Drainage—Lake Cormorant Drainage Dist. sold \$110,000 bonds to Liberty Central Trust Co., of St. Louis. Address Dist. Commrs.

Miss., Oxford—School—Perkins Consolidated School Dist. will vote in March on \$12,000 bonds. Address Bd. of Supvrs.

Miss., Pascagoula—School—City, J. R. Watts, Mayor, will vote March 5 on \$100,000 bonds. Address The Mayor. (Lately noted.)

Miss., Ripley—School—Meadow Creek Consolidated School Dist. will vote March 2 on bonds. Address Dist. Trustees.

Mo., Bransville—School—School Bd., J. W. Morrison, Prest. of Bd., voted \$19,450 bonds. (Lately noted.)

Mo., Fair Play—School—Fair Play voted \$30,000 bonds. Address School Bd.

Mo., Kansas City—School—Kansas City School Dist., E. F. Swinney, Treas. Bd. of Directors, will receive bids until Feb. 27 for \$1,000,000, 4½% bonds.

Mo., Liberty—School—City, J. L. Campbell, Supt. of Schools, voted \$100,000 bonds.

Mo., Marshall—Bridge—Saline County sold \$150,000 bonds to a St. Louis firm. Address County Commrs.

Mo., Marshall—School—City sold \$200,000 bonds to a Kansas City Co., at premium. Address The Mayor.

Mo., West Plains—Water—West Plains voted \$25,000, 6% bonds. Address The Mayor.

N. C., Burlington—School—City Bd. of Education, C. C. Maworth, Secy., will receive bids until Feb. 27 for \$150,000 bonds.

N. C., Clinton—Road and Bridge—Sampson County sold \$30,000 bonds of the \$100,000 bond issue to Hanchett Bond Co. of Chicago, at a premium. (Lately noted.)

N. C., Dunn—Hospital—Town contemplates voting on \$20,000 bonds. Address The Mayor.

N. C., Faison—School—Faison Graded School Dist., M. H. Wooten, Secy., will receive bids until March 5 for \$50,000, 6% bonds.

N. C., Henderson—School—Kitrell School Dist., E. M. Rollins, Supt., will receive bids until March 1 for \$45,000 bonds.

N. C., Henderson—School—Township School Dist., E. M. Rollins, Supt., will receive bids until March 1 for \$20,000 bonds.

N. C., Lexington—Sidewalk, Sewer and Water—Town will receive bids until March 20 for \$225,000 bonds.

N. C., Lincoln—Road—Lincoln County will receive bids until March 8 for \$225,000 bonds. Address County Commrs. (Lately noted.)

N. C., Marshville—Sewer and Water—City, F. C. Broadway, Clk., will receive bids until March 26 for \$75,000, 6% bonds.

N. C., Washington—Drainage—Drainage Comsn., J. P. Clark, Secy., will receive bids until March 1, for \$57,000, 6% bonds.

Okl., Blackwell—Park—City Sinking Fund purchased \$50,000 bonds from City. Address The Mayor.

Okl., Miami—School—City voted \$100,000 bonds. Address The Mayor. (Lately noted.)

S. C., Estill—Goethe and Lawton Townships, Hugh O. Hanna, Dist. Atty., will receive bids until March 1 for \$75,000, 6% bonds.

S. C., Florence—Florence County Commrs., E. D. Sallenger, Chrmn., sold \$150,000 bonds to Commercial & Savings Bank, Florence. Address The Mayor.

S. C., Greenville—Sewer—City, G. G. Wells, Clk., will receive bids until March 6 for \$100,000, 5% bonds.

S. C., Greer—Paving, Sewer, Indebtedness—City sold \$75,000 bonds to the First National Bank of Greer. Address The Mayor. (Lately noted.)

S. C., Sumter—Street—City sold \$150,000, 5% bonds to William R. Compton Company of New York City. Address The Mayor. (Lately noted.)

Tenn., Lenoir City—Road—City sold \$100,000 bonds to I. B. Tigrett and Co. of Jackson at a premium. Address The Mayor.

Tenn., Nashville—Trunk Sewer—City sold \$400,000, 5%, \$1000 denom. bonds to Kountz & Co., 141 Broadway, New York. Address The Mayor. (Lately noted.)

Tenn., South Pittsburg—School—City sold \$55,000 bonds to Caldwell & Co., of Nashville, Tenn. Address The Mayor.

Tex., Cameron—Paving—Milan County Commrs. will receive bids for \$22,000 bonds.

Tex., Colorado—Courthouse—Mitchell County sold \$115,000 bonds to Hanold & Co., of Kansas City and the Southwestern Securities Co. of Amarillo at par, with accrued interest. Address County Commrs.

Tex., Conroe—Road—Montgomery County sold \$100,000 bonds to Sidney Spitzer & Co., of Toledo, Ohio. Address County Commrs.

Tex., Corpus Christi—Navigation—Nueces County sold \$1,000,000 bonds to Sutherland, Barry & Co., of New Orleans, La. Address The Mayor.

Tex., Greenville—Water and Sewer—City will vote March 19 on \$65,000 water bonds and \$20,000 sewer bonds. Address The Mayor.

Tex., Henrietta—Road—Clay County contemplates voting about March 20 on \$550,000 bonds. Address County Commrs.

Tex., Howe—Waterwork—City will vote on bonds. Address The Mayor.

Tex., Marlin—Road—Falls County sold \$100,000, Rosebud bonds to Breg, Garrett & Co., of Dallas, \$60,000, Lott bonds to Hall & Hall, of Temple, and \$30,000 Chilton bonds to Caldwell & Co., of Nashville. Address County Commrs.

Tex., Port Arthur—Street and Sewer—City will vote on \$60,000 bonds. Address J. P. Lugan, Mayor.

Tex., Rule—Water—City voted \$54,000 bonds. Address The Mayor.

Tex., Spearman—Water and Light—City sold \$55,000, 6% bonds to H. C. Burt & Co., of Houston. Address The Mayor.

Tex., Wichita Falls—Irrigation—R. M. Grant & Co., of St. Louis, purchased \$750,000 bonds. Address The Mayor.

Va., Falls Church—School—Jefferson Dist. will vote on \$150,000 bonds. Address Fletcher Kemp, Supt. of Schools.

Va., Graham—Street and Sidewalk—City voted \$37,500 bonds. Address The Mayor.

Va., Newport News—School, Sewer and Street—City sold \$300,000 bonds to Weil, Roth & Irving, of Cincinnati, at premium. Address The Mayor.

W. Va., Clarksburg—Road—Harrison County, Elk Dist., contemplates issuing \$120,000 bonds. Address County Commrs.

W. Va., Fayetteville—Roads—Fayette County contemplates voting on \$400,000 bonds; Quinnimont Dist. contemplates voting on \$100,000 bonds. Address County Commissioners.

W. Va., Keyser—Water—City voted \$75,000 bonds. Address The Mayor.

W. Va., Logan—Road—Logan County contemplates voting on \$500,000 bonds. Address County Commrs.

W. Va., Philippi—Road—Barbour County, Cove Dist., contemplates issuing \$100,000 bonds. Address County Commrs.

W. Va., Pineville—Road—Wyoming County, Huff Creek Dist., contemplates voting on \$50,000 bonds. Address County Commrs. (Lately noted.)

W. Va., Williamson—Road—Mingo County, 2 Districts, contemplates issuing \$240,000 bonds. Address County Commrs.

Financial Notes.

Bank of Williamsburg, Williamsburg, Ky., capital from \$10,000 to \$25,000.

Cape Exchange Bank, Cape Girardeau, Mo., will increase capital from \$15,000 to \$25,000.

Farmers & Merchants' Bank, of Easton, Md., increased capital from \$25,000 to \$100,000.

First National Bank, Jasper, Ala., will increase capital from \$50,000 to \$100,000.

Volunteer State Life Assn., Chattanooga, Tenn., will increase capital from \$500,000 to \$600,000.

Trade Literature.

Fire Door Hardware.

Allith "Approved" fire door hardware is the subject of a folder issued by the manufacturers the Allith-Prouty Company, Danville, Illinois. Several illustrations accompanied by descriptive matter show the value of this hardware in fire proofing construction. The results of a severe test are pictured.

Portable Belt Conveyors and Loaders.

Booklet 1022 of the George Haiss Manufacturing Company, 141st St. & Rider Ave., New York, explains and pictures the advantages of their portable belt conveyors which are widely used and appreciated. These conveyors handle such loose materials as coal, ashes, brick, cement, grain, gravel, bags and boxes, etc. most efficiently. A folder of the same company tells about the Haiss truck loaders and belt conveyors as mounted on Fordson tractors.

Unique and Interesting Booklet.

"The Story of our Trade Mark" is an artistic, copyrighted booklet issued by Caldwell & Company, bankers, Nashville, Tennessee. The trade mark itself which is pictured in the booklet was adopted, it is stated, because it symbolized several fundamental qualities of a soundly conducted investment business. It is a reproduction of a letter in the Phoenician alphabet of more than 3000 years ago and it was called Beth; it has come down to us in the letter B. There are three interesting illustrations of the letter in its stages from Phoenician days to the present, besides some other pictures. The story narrated is entertaining and instructive.

A Road Plane and Its Work.

The Austin pressure road plane manufactured by the Austin Manufacturing Company, Chicago, Illinois, is described and illustrated comprehensively in a new pamphlet issued by them. This machine, it is stated, is actually designed after the principle of a carpenter's plane, as it has long runners—corresponding to the base of a plane—which travel over the surface on a road already planed smooth by the front blade. It is noted that the runners prevent the planing blade dropping down into and digging out low spots in a road as would be the case if gravity was relied upon for cutting power. This plane, it is further remarked, cuts off high places and fills low ones with loose material cut off, it being packed into them by pressure.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Steel Wheel Catalog.

Steel wheels for wheelbarrows, carts, concrete mixers, cultivators, farm trucks, road machinery, industrial trucks, portable steam plants, derricks, scrapers, trailers, tractors, trucks, wagons, etc., etc., are the subjects of Catalog No. 16 of the Geneva Metal Wheel Company, manufacturers of "Security" steel wheels, Geneva, Ohio. Instructions concerning how to order wheels, together with considerable other valuable information are contained in this interesting and finely illustrated publication.

Losses in Steam Power Plants.

The Uehling Instrument Company, Paterson, N. J., have issued a 12 page folder which explains concisely the two largest losses in steam power plants; first, loss of steam turbine economy from air leakage into the condensing system, and second, the sensible heat in the flue gases lost up the chimney. The combined barometer and vacuum recorder, illustrated in the folder is an automatic log of condenser performance and the chart is legible to less than 1/20 inch of mercury. Other equipment is also shown accompanied by tables and other valuable data.

Internal Corrosion of Piping.

The protection of pipe against internal corrosion is the subject of "National Bulletin" 3C issued by the National Tube Company, Pittsburgh, Pa. On the first page is an illustration showing a section of pipe used with raw water and another section that was used with "deactivated" water, both pieces coming out of the same building. Several articles follow, describing the fundamental causes of corrosion, details of the mechanism of corrosion, practical means of preventing corrosion, and typical results of corrosion prevention, all by F. N. Speller, metallurgical engineer of the company.

Complete Inspections and Tests.

Under the title of "Plant and Products" the DeLaval Steam Turbine Company, Trenton, N. J., have published a booklet of 24 pages briefly describing their single and multi-stage steam turbines, centrifugal pumps, blowers and compressors, and speed reducing gears which they have produced and in which they have specialized since they began business in 1901. In the present manufacturing plant containing about 275,000 square feet of floor space all lines of manufacture are conducted on an interchangeable basis with limit gauges throughout, including a comprehensive system of inspection, ending with performance tests.

Trade Directory.

The spring edition of the Louisville Trade Directory and Merchants Buyers Guide, published by the Merchants & Manufacturers Association of Louisville, Ky., has been issued, having a circulation of 23,000 copies among merchants of that state besides adjacent commonwealths. It is printed in four colors and is attractively illustrated; it contains varied and useful information. In its 64 pages it lists and indexes Louisville's leading manufacturing, wholesale and jobbing interests and provides a ready reference for purchasers of any merchandise. There are also interesting illustrations of the city's mercantile and manufacturing establishments, residences, public buildings, office buildings, hotels, etc. The plan by which members of the Association pay the fare of persons going to Louisville to purchase goods is fully explained.

Furnace Equipment Catalog.

A large pamphlet of 16 pages has been issued by the Combustion Engineering Corporation 43, 45 and 47 Broad Street, New York, giving condensed descriptions of all their products. This it is stated, is the first time that the corporation has attempted to get out a book covering everything that they manufacture. It gives full descriptions of their mechanical stokers, furnace equipment, etc., including pulverized fuel systems, fuel oil burners, coal dryers, ash conveyors, fuel retarders, waterbacks, oil torches, and air preheaters. The publication is completely illustrated.

Large Copper Frieze at Baseball Park.

Bulletin No. 15 of the Copper & Brass Research Association contains a most interesting article about the huge copper frieze which is to surmount the enormous grand stand of the new stadium in New York City which is described as the world's largest baseball park. The management, it is stated, wanted the soft green color effect of weathered copper to blend with the green of the ball field; hence they abandoned the idea of using a cheaper metal to be covered with paint, deciding that as the copper would not require painting at all there would be an increasing saving in consequence of its adoption for the frieze. The frieze varies in height from an average of nine feet to a maximum of seventeen feet and is about 900 feet long. It was made of 16 ounce copper by the Hermann & Grace Co., of Brooklyn, N. Y.

Handsome Bronze and Brass Work.

Bearing the title "Expressions of Satisfaction" a booklet which abounds in superior illustrations of their products is being distributed by the Newman Manufacturing Company, manufacturers of ornamental metal work, 416-418 Elm St., Cincinnati, Ohio, to about 13,000 architects, contractors, and jobbers of building material. Some of the pictures show installations in banks and post-offices of different patterns of handsome grille work done by this house; others show bronze doors and grille gates for financial institutions, etc., counter screens, check desks and calendar racks, ticket booths, art metal doors, etc. and in the way of church equipment pulpits of hand-wrought solid bronze, altar rails and gates, besides brass and bronze railings for theatres. There are also cast bronze tablets of special patterns, marquis and canopies, etc. Letters of appreciation accompany the illustrations throughout the booklet.

Electric Power for Saw Mills.

"Electrically Driven Saw Mills," the new Bulletin No. 140 issued by the Allis-Chalmers Manufacturing Company, Milwaukee, Wisconsin, has an exceedingly attractive cover page picture, and the illustrations within the book are equally interesting and complete. The facts about electrically driven saw mills are entertainingly and instructively narrated and the advancement in the use of the new power is impressed upon the reader in the following: "The last decade has witnessed remarkable strides in the development of electric drive in the lumber industry. The application of the electric motor had its inception in the planing mill, box factory and other types of re-manufacturing plants, but due to the numerous advantages of the electric drive it was quickly adopted for the saw mill proper, and in nearly all cases today, except in small mills, electric drive is selected as a matter of course either in the design of a new mill, or in the remodeling of an old one." The advantages of this power are impressively enumerated.

How to Use Electric Cranes.

The Whiting Corporation, Harvey, Illinois, manufacturers of cranes, foundry equipment, and railway specialties, have issued a new book on the operation and maintenance of their electric cranes. It includes lists of parts, together with cuts and diagrams which make it easy to order repair parts. Complete instructions of how to order are given on the first page and on the last page are a number of "Don't's" for operators of cranes to read and digest. This book, which is Bulletin No. 159 (superseding No. 141), is finely printed and attractively illustrated.

A Device to Catch Boll Weevils.

The Goodwin Boll Weevil Catcher, is described in folders issued by the Goodwin Manufacturing Company of Raleigh, N. C., which says: "In some of the boll weevil infested states the farmer has employed labor to knock the boll weevils from the buds of the cotton plants into a hopper. Our invention is attached to a cotton cultivator plow which in no way interferes with the operation of the plow, requires no additional labor in its operation, and does not demand further than first cost nor any expense in its operation. The paddle wheel strikes the cotton plant and disengages the weevil, forcing the weevil onto a trap that is arranged to hold the weevils fast. The weevil is then burned. Our attachment consists of a flexible driving wheel which propels the paddle." It is further stated that after the attachment has finished its operation the cotton will be so advanced that it will be practically impossible for the weevil to materially damage or reduce the yield of cotton where it has been used. The equipment is capable of serving 50 acres of cotton.

Electric Equipment for Industrial Plants.

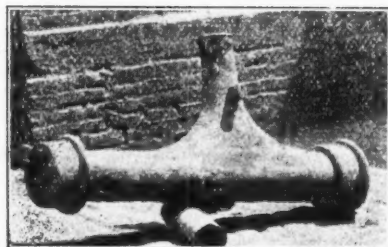
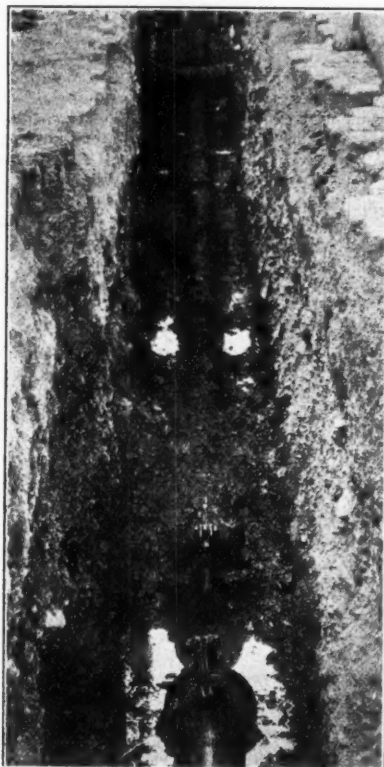
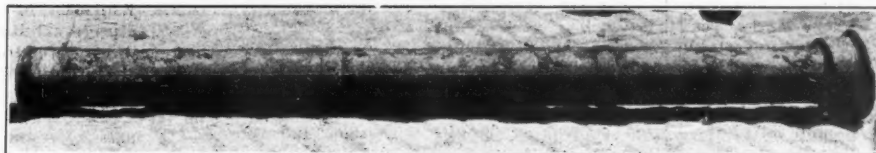
The power equipment of the plant of the Marquette Cement & Manufacturing Company, LaSalle, Ill., is described in a leaflet published by the De Laval Steam Turbine Company, of Trenton, N. J. This plant uses direct current to operate cranes, hoists, crushers and other machinery, and it is found of particular advantage where variable speeds are required. Current is supplied by a generator of 3750 kw. capacity, driven by a De Laval compound geared turbine, which has two shafts, the pinions of which drive the gear coupled to the generator shaft, this making it possible to combine a large number of turbine stages, as required for high efficiency, with the advantages of short rigid shafts. Impurities are removed from the lubrication system by a De Laval centrifugal purifier. Another leaflet issued by the same manufacturers, describes the power equipment of the Brown Willamette Paper Company's mill at West Linn, Ore. The separate sections of the paper machine are driven by direct current motors and the relative speeds of the several rolls, as required to take up the "draw" or stretch of the paper, are maintained accurately by interconnected synchronous motors belted to the direct current motor shafts by adjustable cone pulleys. The leaflet describes the variable speed drive in detail and should interest engineers having similar problems.

Book Reviews.

A Text Book of Filing. By James N. McCord. New York and London; D. Appleton & Company, 1922. Pp. 190.

Business managers will greet this book with satisfaction because it presents conclusions based upon years of experience on the part of the author in training thousands

(Continued on page 130)



Progress Through Permanence

Among the first cities in the United States to install an effective water system was Troy, New York. In 1829, an act to incorporate the Troy Water Works passed the State Legislature and two years later this company was taken over by the city. Even at that early date the City Fathers saw that real progress could only be made by installing a permanent system and accordingly cast iron pipe was laid.

The wisdom of this decision cannot be questioned and the City of Troy has an unusually efficient water works system in spite of the fact that some of the mains installed over 80 years ago are still in use.

Recently it seemed advisable to increase the capacity of the line on Fifth Avenue and to replace the 6 in. pipe with 8 in. mains. Some of the oldest pipe in the city was removed in this work. This composed part of a line of 2809 feet laid in 1833. Before removal a pressure of 112 lbs. was maintained on the line for an hour without a sign of break or leakage.

Information and pictures furnished through the courtesy of Superintendent W. A. Nial.

Write for Booklet, "98 Years of Excellent Service," describing a similar installation in Philadelphia

United States Cast Iron Pipe and Foundry Co.

GENERAL OFFICE: BURLINGTON, NEW JERSEY

SALES OFFICES:

Philadelphia—1421 Chestnut Street
New York—71 Broadway
Pittsburgh—Henry W. Oliver Bldg.
Dallas, Texas—Magnolia Bldg.

Chicago—122 South Michigan Boulevard
Cleveland, Ohio—1150 E. 26th St. N. E.
Birmingham, Ala.—1002 American Trust Bldg.
Cincinnati, Ohio—Dixie Terminal Bldg.
San Francisco—Monadnock Building

Minneapolis—Plymouth Building
Buffalo—957 E. Ferry St.
St. Louis—Security Building
Kansas City—Interstate Bldg.

of individuals. Mr. McCord is director of the New York School of Filing and he has embodied in this volume a large fund of material of great value to everyone who seeks information on the subject of filing. It deals completely and in full detail with all of the modern filing methods, and applies the numerous systems now in practice to different lines of business as well as to the professions, accompanying the instructions with the latest suggestions concerning matters of office routine and cross-references, also as to the various branches of filing now in use. Having organized and developed one

of the largest of schools for instruction in filing work the author is recognized as an authority upon his subject, which he now considers and discusses most adequately, thus providing the business world with a standard of practice in the establishment and conduct of a filing system so as to reap the utmost advantage from it. The book is fully illustrated with representations of different kinds of filing cabinets, card forms, ledger forms, etc. The press work and paper are of the best and the binding is of attractive red cloth.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers, or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Sales Office Opened.

The Erie City Iron Works, manufacturers of boilers, tanks and engines, have recently opened a sales office at Dallas, Texas, their representative being F. L. Drew, district sales agent, at Room 225 Schluter Building.

Orders for Church Equipment.

Orders recently received by the Ivan Allen-Marshall Company, church outfitters, Atlanta, Ga., include one from the Georgia Avenue Presbyterian Church of that city for pews and pulpit furniture, besides another from the Asbury Memorial Church, Methodist Episcopal South, of Savannah, for pews, pulpit furniture and Sunday School equipment, the church building having been completed.

New Engineering Firm.

Sanders & Sweeney, consulting engineers, Anderson, S. C., have dissolved partnership and F. R. Sweeney, of that firm has organized the new firm of F. R. Sweeney & Co. to practice in the civil, mechanical, electrical and industrial engineering field with particular attention to textile engineering. Mr. Sweeney has associated with him some very able talent in textile work. The firm will continue to occupy the former offices of Sanders & Sweeney, dissolved.

Business Incorporated.

The business of the Hamburg Boiler Works, manufacturers of steam boilers, stacks, tanks, air receivers, etc., at Hamburg, Pa., has been incorporated under the laws of that state with \$60,000 capital stock fully paid. The business will now be known as the Hamburg Boiler Works, Inc., and will be conducted on the same premises as before, under the same management and manufacturing the same lines. Henry Seiders is president.

Appointment of Sales Representatives.

Leslie Garlinghouse has been transferred from the main office of the Blaw-Knox Company in Pittsburgh to their Birmingham office, American Trust Building, Birmingham, Ala. There he will be sales engineer, assisting the Birmingham manager, P. V. Kelly, whom he will help to extend the company's field, and also co-operate with the Southern agencies handling these products. L. R. Grannis, former Chicago manager of this company and later manager for Landes & Co., of Denver, Colo., has been appointed agent to sell their products in that state, his activities covering road builders' equipment, clamshell buckets, Prudential buildings and some other products.

George A. Taylor.

George A. Taylor, district sales manager at Boston for the Youngstown Sheet & Tube Company, died at his home there on January 23 after a comparatively brief illness. He was born in Boston February 29, 1856, and when a boy began his life in the steel business with the National Tube Company there. Later he was connected with several concerns and joined the Youngstown Sheet & Tube Co. in November 1908, becoming manager of the Boston office. He was greatly beloved by all of his associates.

Big Order for Electric Railway Equipment.

Because of a large increase of traffic the Long Island Railroad conducting one of the heaviest suburban passenger services in the world, has purchased from the Westinghouse Electric & Manufacturing Company, 40 motor car equipments, 20 trailer car equipments, and 4 baggage-mail car equipments. To provide necessary power by increasing the sub-station capacity of the line, another order has been placed with the Westinghouse organization for one 4000 kw. and one 3000 kw., six phase, 25 cycle, 650 volt, converter with necessary transformers, the entire order amounting to over \$500,000. The baggage cars will have Westinghouse type 308 D-7 field control motors and Westinghouse electric-pneumatic control.

Recent Engineering Contracts.

Lockwood, Greene & Co., engineers, Boston, Mass., prepared the plans for the new building just completed by the E. D. Ward Co., of Worcester, Mass., for the Talbot Mills at North Billerica, Mass., for carding and spinning, the structure being 209 feet long by 78 feet wide and four stories high. It has concrete walls with brick panels, structural steel columns and floor beams with plank under-floors and maple top. This engineering firm were also in charge of the work of installing new electric elevator and tower in the machine shop at Springdale, Conn., of the Segal Metal Products Co., of New York City and they are now engaged, through their Canada branch, for report and supervision of water wheel problem for the Paton Manufacturing Co., of Sherbrooke, P. Q. Still another contract of this firm is on the new knitting mill and dye house for the Pitman Manufacturing Co., Laconia, N. H., which is approaching completion. They also have contracts with A. O. Hagar, Worcester, Mass., for a new building of 13 stories, and for the Masonic Cathedral at Nashua, N. H.

Atlanta Office Established.

Manning, Maxwell & Moore, Inc., have opened an office—beginning March 1—at 500-501 Forsyth Building, Atlanta, Georgia, with J. C. Blanton in charge as manager. Mr. Blanton has represented the firm for many years in the South and associated with him is W. G. Nichol, who has charge of the sale of machinery and Shaw cranes. While headquarters of this firm are at New York they suggest that manufacturers located in the South, for the sake of convenience, communicate direct with the Atlanta office.

Sale of Engine Plant.

A peremptory sale at auction of a large modern engine plant is to take place March 13 at 10:30 A. M. on the premises 128 to 138 Mott St., New York, where there will be sold 10 milling machines, 25 lathes, a number of turret lathes and screw machines, besides boring mills, horizontal and vertical; planers, drills, radial and plain; and also hack saws, arbor presses, grinders, shapers and other machines and tools besides office equipment. Charles Kriser, auctioneer, 25 Church St., New York, can supply catalogs.

New Firm Established.

J. F. Hakes & Co. have begun business as manufacturers representatives at Room 1109 American Building, Baltimore, Md., and are now acting in that capacity for the Riverside Metal Co., of Riverside, N. J., manufacturers of nickel silver and phosphor bronze in rods, sheets and wire; the Electric Fuseguard Co., of Charlottesville, Va., manufacturers of electric fuseguard equipment; and the All-Steel Equipment Co., of Aurora, Ill., manufacturers of steel lockers and a complete line of steel office and shop equipment. They are, furthermore, desirous of making connections with other manufacturers of reliable electrical products, particularly copper wire both insulated and bare. Mr. Hakes has been for the last eight and a half years with the Baltimore Tube Company, part of the time being their superintendent and during the last three years in the sales department, resigning recently as their Philadelphia district manager.

Important Traffic Service.

Thos. E. Grady & Company, Incorporated, with offices in Atlanta and Savannah, Ga.; Columbia, S. C., and West Palm Beach, Fla., are conducting a business as industrial traffic managers and counsellors in which they represent, it is stated, more than 3000 shippers and receivers of freight in the South with an aggregate capital of more than \$200,000,000. Changing rates and new legislation regulating transportation are so frequent that shippers stand in constant need of advice concerning them, and the activities of this firm include the quoting of freight rates for both rail and ocean shipments, advice as to classification and as to packing requirements, the auditing of freight bills and of prepaid bills of lading, the collection of overcharge claims, and also loss or damage claims, giving of legal opinions upon traffic law matters, the handling of complaints before railroad commissions, including the Interstate Commerce Commission, furnishing of any special or other information concerning traffic matters, handling of reconsignments and embargoes, etc., etc. In addition to its offices, this organization maintains a special representative at Washington, so as to have at all times the earliest and first hand information relative to any contemplated changes. A weekly letter to clients is issued to keep them posted.

(Continued on page 132)

Barrett Specification Roofs

Bonded for 20 and 10 Years

All Over the U.S.A.—

Pictured on this page you see the principal new buildings in eight representative American cities.

All kinds of buildings are included among them—libraries, schools, hospitals, banks, office buildings, stores, hotels, railroad stations, warehouses, factories. All kinds of materials were used in their construction—stone, brick, terra cotta, concrete.

Yet every one of these buildings has the same roof—a Barrett Specification Roof.

For leading architects and engineers all over the United States know from experience that the Barrett Specification Roof represents the utmost in roof economy—lowest cost *per year of service*.

The eight cities shown are typical of all progressive American cities. No matter where you go you will find that a large majority of the permanent flat-roof buildings—whether they are industrial, commercial, or public buildings—are covered with Barrett Specification Roofs.

Bonded Against Upkeep Expense

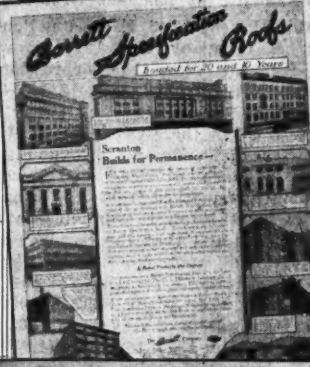
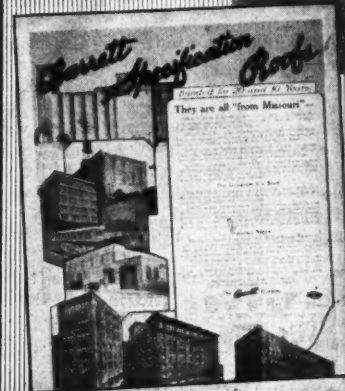
Without cost to the owners, Barrett Specification Roofs are bonded by the U. S. Fidelity & Guaranty Company against repair or maintenance expense; Type "AA" Roof for 20 years, and Type "A" Roof for 10 years. We will gladly send, on request to our nearest office, full information regarding these bonded roofs and copies of the Barrett Specifications.

The *Barrett* Company



New York Chicago Philadelphia Boston St. Louis Cleveland
Cincinnati Pittsburgh Detroit New Orleans Birmingham
Kansas City Minneapolis Dallas Salt Lake City Atlanta Bangor
Youngstown Toledo Columbus Richmond Baltimore Omaha
Houston Denver

THE BARRETT COMPANY, Limited:
Montreal Toronto Winnipeg Vancouver St. John, N.B. Halifax, N.S.



Hosiery Mills Leased.

Winner Mills, Inc., of Boiling Springs, N. C., have been leased by W. H. Shuford, of Hickory, N. C., who takes full charge of them this month. These mills manufacture and convert fine hosiery.

Branch Office Opened.

The U. T. Hungerford Brass & Copper Co. has opened an office in the Leader Building, Superior Avenue and East 6th Street, Cleveland, Ohio, with W. A. Amelung in charge. The home office of the company is in the Hungerford Building, Lafayette, White and Franklin streets, New York.

Engineering Contracts.

Ophuls & Hill Inc., engineers, 112-114 West 42nd St., New York, are engaged for a 300-ton raw water electrically driven ice making plant to be built at 513-523 West 40th St., New York for the Ice Service Co., Inc.; also for a 500-ton raw water steam driven plant for the Nueva Fabrica de Hielo, Havana, Cuba.

Rolling Mill Gauges.

Three new rolling mill gauges designed for quick, accurate work on sheet and plate iron and steel, and which are made to withstand hard, constant service are being placed on the market by the L. S. Starrett Company, Athol, Mass. These gauges are for the English or Birmingham standard, numbers 000 to 25 and 1 to 32, and for United States standard numbers 000 to 25. The decimal equivalents of each number are stamped on the back with extra large figures. The gauges are hardened and tempered, each being carefully tested. They are approximately 3-16 inch thick, 1 7-16 inches wide and 5 7-8 inches long and they have a black finish.

Price Reduction Announced.

The United States Motor Truck Company, of Cincinnati, have announced reductions of prices of their trucks ranging from \$300 to \$650 on the seven models comprising their line. R. S. Stewart, vice president, said: "In the fourteen years we have been building motor trucks we have always built the best truck we knew how, regardless of cost and sold it at a fair profit. Competition has not influenced us in making this price reduction; we can now build trucks of the same high quality at lower cost. We believe it is to our own best interests to share our manufacturing savings with truck owners." It is believed that the plan of publishing prices broadcast will bring factory, dealer and customer closer together in a better understanding.

Engineer Engages In Advertising.

Edwin L. Andrew has been appointed assistant to the manager of the department of publicity of the Westinghouse Electric & Manufacturing Company at East Pittsburgh, Pa. Although studying engineering Mr. Andrew became interested in advertising through magazine and other advertising activities while in college and he began an apprenticeship course at East Pittsburgh with the intention of taking up advertising work when it was completed, believing that advertising is a legitimate and attractive field for an engineer who has commercial vision. Mr. Andrew graduated from the University of Wisconsin in 1916 after which he began his apprenticeship course and his advance since then has been steady, having served at the main works and also at the Cincinnati office of the company. He was in the army for over a year, entering as a private and advancing to a second lieutenant.

Official Changes.

W. L. Allen has been elected president of the Kansas City Bolt & Nut Company. George T. Cook, for some time chairman of the board, is now chairman of the executive committee and Solomon Stoddard, president for a number of years is chairman of the board. Mr. Allen has been brought into the company because of the wider scope of its operations and its plans for the near future. He was recently vice president and general manager of the Laclede Steel Company, St. Louis, Mo., and before that he was president of the Valley Steel Company, which was absorbed by the Laclede Steel Company in 1918.

Architects Form Partnership.

Charles C. Wilson, architect, Columbia, S. C., has taken into partnership G. R. Berryman, manager of his office at Wilson, N. C., and hereafter the practice will be conducted under the firm name of Wilson & Berryman, with offices in Columbia, S. C.; Gastonia, N. C., and Wilson, N. C. Before joining with Mr. Wilson three years ago Mr. Berryman was connected with the offices of the supervising architect of the United States Treasury as supervising superintendent of construction with headquarters in Atlanta for government buildings in the South. He will have general charge of all field work of the firm.

Milton F. Williams.

Milton F. Williams, president of the Williams Patent Crusher & Pulverizer Company, St. Louis, Mo., died February 8 after an illness lasting about eighteen months. He was widely known throughout the country by manufacturers and others as the inventor of the hinged hammer principle used for crushing, grinding and shredding. Mr. Williams went to St. Louis more than fifty years ago and worked as a millwright in a small machine shop. He originated the swing hammer crusher and pulverizer in 1895 and in 1897 incorporated his machine works under their present name. Their products are sold in many foreign countries as well as throughout the United States. Mrs. Williams, three sons and a daughter survive him.

A New Walworth Unit.

The new Walworth Ohio Company, which succeeds the old Hiram Rivitz Company, of Cleveland, is a large organization, having its main store and general offices in a new and thoroughly modern warehouse on East 40th street in Cleveland, where there is also a sub-branch or service station on West 65th street. Immediately across the street from the main store is a large pipe storehouse and shop; there is also a store and warehouse at Youngstown, Ohio. This large new company is a subsidiary of the Walworth Manufacturing Company of Boston, Mass., and its locations, size and equipment place it in position to be of complete service to jobbers, steam-fitters and plumbers in its territory and places adjacent thereto. S. R. Mitchell goes to Cleveland as vice president and general manager of this new Walworth unit and Wm. M. Mickleborough will be the financial man with the title of assistant treasurer. A complete stock of Walworth products will be maintained at Cleveland, and in less volume at Youngstown. The Rivitz organization will remain with the Walworth Ohio Company. A full account of the change of ownership is contained in the "Walworth Log" for February, which opens with a statement over the signature of President Howard Cooley concerning the acquirement of the Rivitz business.

Sales Office in New Location.

The United States Cast Iron Pipe & Foundry Company have changed the location of their sales office in Dallas, Texas, from the Scollard Building to the Magnolia Building, Room 617, the office being still under the charge of Thomas W. Hanlon, Southwestern sales agent. Headquarters of this company are at Burlington, N. J.

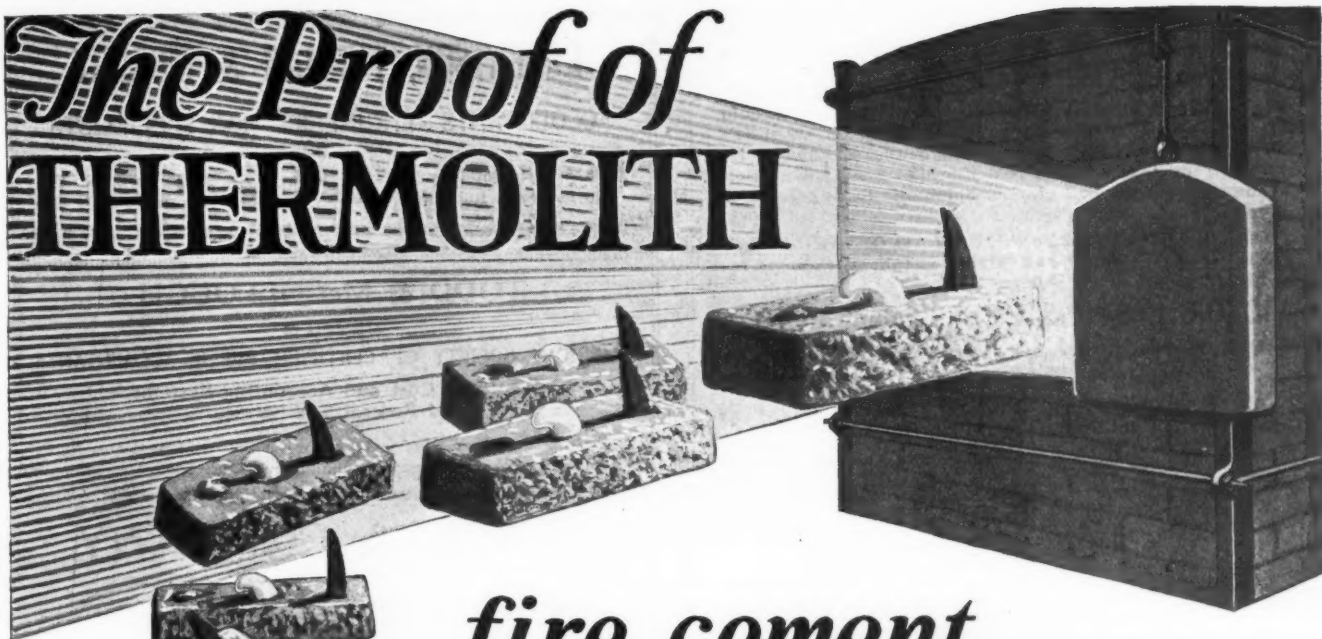
Baldwin Locomotive Works Report.

The twelfth annual report of the Baldwin Locomotive Works, which covers the calendar year 1922, shows total sales of \$33,087,258.62, of which more than 91 per cent were made on a cash basis, the manufacturing profit on the cash basis sales being \$1,335,366.12 and the profit on sales made on a deferred basis being \$658,995.38, or a total manufacturing profit of \$1,994,361.50. Other income brought the gross profits up to a total of \$8,072,935.96, from which was deducted other expense, etc., leaving profit of \$6,765,514.43. From this latter figure was deducted for depreciation, income taxes and deferred profits a total of \$1,558,995.38, leaving net cash profit of \$5,206,519.05 and surplus, after dividends on preferred and common stocks of \$2,406,519.05. The total assets of the Works are stated in the balance sheet as \$87,875,550.55, which include current assets of more than \$51,000,000.

Graphic Showing of Efficient Organization.

The annual report of E. I. du Pont de Nemours & Company for 1922 shows a marked recovery from the depression of 1920-1921. Net earnings were \$13,254,000, it is stated, and after providing for interest on the funded debt there remained \$9,445,000 available for dividends, which amount was in excess of cash dividend disbursements. It is further remarked that the company earned its bond interest requirements more than four times and that the earnings available for dividends were more than twice the debenture stock dividend requirements. Total assets are more than \$259,000,000 including current assets of very nearly \$63,000,000. Net sales in 1922 totaled \$71,956,000, of which industrial sales of the parent company were \$60,400,000 as compared with \$51,587,000 in 1921. President Irene du Pont, says to the stockholders in the course of his report: "Data have been assembled to measure the annual output per man in the organization. Included in this computation are not only actual workmen at the plants, but all supervising and indirect labor, including salesmen who solicit the orders, purchasing men who secure the raw materials, traffic men who route the materials over the most economical lines, accountants who prepare costs on every product monthly and who bill and collect for the goods, old, chemical engineers who constantly check chemical yields in every operation and carry on research both as to new products and new methods, and finally administrators who invest capital when and where needed and co-ordinate all of the activities of the several departments and divisions. Representative of this is the result for the year 1922 in your explosives department. For each man so employed by your Company in the United States there were produced and sold 25,614 pounds of dynamite, 15,801 pounds of blasting and saltpetre powders, 21,587 blasting caps and 3900 pounds of dye intermediates and other chemicals. The significance of this is that if one man could employ himself with equal efficiency he could produce all of the above list of products in one year. It is quite apparent to anyone familiar with the products and with the complications of their production and distribution, that one man working alone could produce but a small fraction of these quantities."

The Proof of THERMOLITH



fire cement

Makes the Weakest Point the Strongest

Thermolith has never failed under tests conducted to prove its value as a bond for fire brick. It is *all* that a fire cement should be.

It sets hard and bonds *without* heat.
It *remains* a bond at all working temperatures.

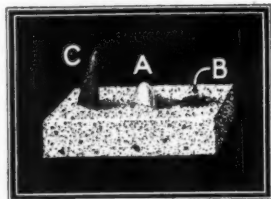
It does not flux the brick at *any* working temperature.

It has a *safe* factor of refractoriness.

It comes in *dry* powdered form—no water to pay for.

It is a *high* temperature cement—it is a *low* temperature cement.

It is *fool proof*—one cement for many purposes. Its use precludes failure.

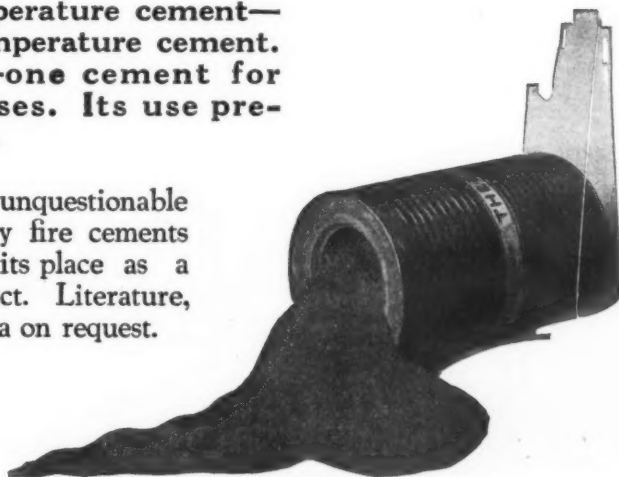


The Seger Cone Test

- A.—The Seger Cone of known fusion point.
- B.—One of many ordinary fire cements, completely fused.
- C.—Thermolith intact after the same test.

In every Cone Test Thermolith has withstood the highest of working temperatures. It will stand *your* test also. TRY IT.

Only by reason of its unquestionable supremacy over ordinary fire cements has Thermolith taken its place as a Harbison-Walker Product. Literature, prices and technical data on request.



HARBISON~WALKER REFRACTORIES CO.
World's Largest Producers of Refractories
Pittsburgh, Pa., U.S.A.

PATENTS TRADE-MARKS AND COPYRIGHTS

Before disclosing an invention the inventor should write for our blank form, "EVIDENCE OF CONCEPTION." This should be signed and witnessed, and if returned to us, together with model or sketch and description of the invention, we will give our opinion as to its patentable nature.

Our Illustrated Guide Book, "HOW TO OBTAIN A PATENT," sent Free on request. Contains full instructions regarding Patents and Trade-marks.

VICTOR J. EVANS & CO., - Patent Attorneys

New York Offices Philadelphia Offices Pittsburgh Offices
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(WILMER BLACK, C. P. A.)

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BALTIMORE, MD.

The Oscar T. Smith Company

Manufacturing Bank Stationers

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OSCAR T. SMITH
President



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HAMMERMILL LETTER HEADS

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Shipped 48 Hours After Receipt of Order
Charges prepaid to your railroad station
Samples on request

LAREW PRINTING CO., Knoxville, Tenn.

How to Insure Sales for Your Product!

The chief asset of any business is the demand for its product. As long as that demand continues, the business is on a sure foundation. But let that demand subside, and every other asset of the business is in danger of becoming a liability.

In times of prosperity and a rising market there is a general demand for the products of industry that comes to be accepted as a matter of course. It is seldom listed among the assets of the business—it is simply assumed that it will always be there.

But, overnight, conditions may change—as they have done before—and the matter-of-course demand becomes conspicuous by its absence. The business, once strong and flourishing, is suddenly found to be in a very tight place. *The demand had not been insured*—and yet the entire business depended upon its continuance.

The modern, economical way to insure the market for any reliable product is by Advertising to the public which consumes it. Advertising creates a steadily increasing number of customers who desire the product, and ask for it by name.

Changes in business conditions have little effect on a steady consumer demand for trade-marked articles of common use. The dealer may carry a lighter stock, and for a short time the demand through the jobber may seem curtailed; but just as sure as customers are calling on the dealer for the product, he is sure to supply it, and orders soon begin to flow in to make up for the temporary curtailment. The total consumption continues about the same.

Any manufacturer who has an article for popular consumption that can be trade-marked has the opportunity to insure his consumer market and retail sales by means of Advertising.

During the present business condition the manufacturers who have insured their demand by Advertising are in a far better position—in every way—than those who have trusted to the current demand that was not of their creating.



22 Years in business without loss to a purchaser. Certificates can be cashed in at any time. Issued against 1st mortgage real estate loans in denominations of \$100 and up. Refer to any bank or trust company in Savannah. Assets and resources more than \$1,000,000.

G. A. MERCER CO.

Investment Bankers SAVANNAH, GA.

[Published by the MANUFACTURERS RECORD in co-operation
with The American Association of Advertising Agencies]

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R. A. TERRELL - - - - - President
J. W. MINOR - - - - - Vice-President
FOSTER HAMILTON - - - - - Cashier

We Solicit Your Business

IN RICHMOND VIRGINIA

The First National Bank offers complete facilities for quick collections in this territory.

FIRST NATIONAL BANK

JOHN M. MILLER, JR.,
President

Resources over \$30,000,000
Capital and Surplus \$4,000,000

We Concentrate On Giving Highest Degree Service

This is our aim in dealing with our customers. We have an organization trained to handle financial transactions, intelligently, capably and rapidly. It is our policy to treat the case of each individual as an individual case, giving it separate and careful consideration.

*Your correspondence will
receive our best attention.*

BALTIMORE COMMERCIAL BANK

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Pratt Street and Market Place, Baltimore, Md.

Capital and Surplus \$900,000.00

Member Federal Reserve System

We Buy Bonds

and invite inquiries from municipalities and contractors
We deal in city, county, district, school, road, lighting, water works and other municipal issues.

A. C. ALLYN & CO.

71 W. Monroe St., Chicago, Ill.

NEW YORK MILWAUKEE MINNEAPOLIS BOSTON

ENTIRE BOND ISSUES OF SUCCESSFUL INDUSTRIALS PURCHASED

Offerings Invited

Resources - - - - - \$21,000,000

Established 1884

Mercantile Trust and Deposit Co.

OF BALTIMORE

A. H. S. POST, President. F. G. BOYCE, JR., Vice-President.

WE BUY MUNICIPAL BONDS

We are interested in the purchase of Southern Municipals including road, school, county, drainage and levee bonds.

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Southern Trust Bldg.

Little Rock, Ark.

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We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.

Write us if you have bonds for sale

We Buy Bonds City, County, School and Road, from Municipalities and Contractors

WRITE

THE PROVIDENT SAVINGS BANK & TRUST CO.
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WE BUY

Municipal Bonds

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We want to buy bonds issued by cities, towns, counties, school, road or drainage districts that you may be able to take in exchange for work. Address us at our nearest office.

W. L. SLAYTON & CO.

New Orleans, La. Toledo, Ohio Tampa, Fla.
Chicago, Ill. Glasgow, Mont.

HAVE YOU BONDS FOR SALE?

WE BUY ALL CLASSES OF MUNICIPAL BONDS,
INCLUDING CITY, COUNTY, SCHOOL,
PAVING, ROAD AND DRAINAGE

The Hanchett Bond Co. Inc.

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Transacts a General Trust and Banking Business

Correspondence and Interviews Invited

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THE FOURTH NATIONAL BANK

MACON, GEORGIA.

Feb. 5, 1923.

Mr. Richard H. Edmonds, Editor,
 Manufacturers Record,
 Daytona, Fla.

Dear Mr. Edmonds:

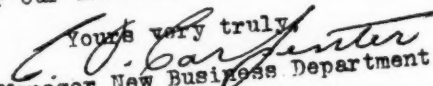
You will recall that last year it was necessary for us to enter an additional order for copies of the 1922 Blue Book of Southern Progress because of the fact we received a large number of voluntary requests for the book after our first order had been distributed. We have for this reason placed an order for 1200 copies of the 1923 edition, believing that this edition will receive an even better reception than did the one last year.

It will no doubt be of interest to you to know that the President of our oldest and largest civic club announced at a large meeting that he had received a copy of the 1922 Blue Book from the Fourth National Bank and urged every member of the club to secure a copy of the publication.

One of our leading pastors stated to his congregation that this book should be as valuable to a business man as the Bible to a Christian worker, and the pastor of the largest Church in the city in talking to a men's Bible Class on the subject of "Optimism" urged every member of the class to secure a copy of the Blue Book, assuring them that they would have no grounds for pessimism regarding the future of the South if they would study the data published in the book.

In addition to many requests for copies from business and professional men we also received a request from the Bibb county School Board that a copy be furnished to every teacher in the county.

We realize that we can do no greater work in upbuilding the business of this section than to help acquaint our own people with their past achievements and the possibilities of the future. With the remarkable improvement in financial, agricultural and industrial conditions in this territory, and the present determination on the part of people of this section to make 1923 a productive year, we believe that by distributing the 1923 Blue Book of Southern Progress we will contribute materially to the prosperity of this section and at the same time will be doing some excellent advertising for our institution.

Yours very truly,

 Manager New Business Department

COC/C

The Manufacturers Record invites every business man in the South to consider the facts presented in the foregoing letter and to order now for delivery as soon as issued, as many copies of the 1923 edition of the Blue Book of Southern Progress as he can profitably use for his office, his family, and his business correspondents.

Use form on reverse side in ordering copies

1923 EDITION

Blue Book of Southern Progress

NOW IN PREPARATION—TO BE ISSUED SHORTLY

The Blue Book of Southern Progress should be in every library, private and public, in the country, and in every counting room in America. No one can possibly understand the South and its relation to the future of the entire country without having before him the facts which are so graphically presented in this story of thrilling interest, where statistics are made to speak with compelling force.

OUTLINE OF CONTENTS

Summary of Southern Progress Since 1900
Summary of the Country's Progress Since 1900
Area of the South, Square Miles
South's Farm Area in Acreage
Number and Acreage of Farms by Tenure
Number and Acreage of Farms by Race and Nativity
Value of Farm Property by Classes
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Population of the South
Native and Foreign Stock in Population
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National Banks
Estimated True Wealth of the South
Assessed Value of Taxable Property
Swamp and Wet Lands
Expenditures for Common Schools
Negro Schools in the South
Assets of Individual Southern States
Condensed Facts About the South

BULK SUBSCRIPTIONS are being received from those who find it desirable to distribute these important facts about the South among their clients, business connections and customers. RATES: 1,000 copies, 25 cents a copy; 500—30 cents a copy; less than 500—40 cents a copy; less than 10 copies—50 cents each.

ADVERTISEMENTS are being accepted for the back part of the Blue Book, to give active factors in Southern development an opportunity to be identified with this thorough survey of the South's progress. RATES: One page—\$100; half page—\$60; quarter page—\$35.

Manufacturers Record

Baltimore, Md.

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BLUE BOOK OF SOUTHERN PROGRESS

MANUFACTURERS RECORD PUBLISHING CO.
Baltimore, Md.

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An order for 1,000 or more entitles the subscriber to have printed on front cover without extra charge "Compliments of (Name of subscriber)." On orders for 10 or less, carrying charges prepaid.

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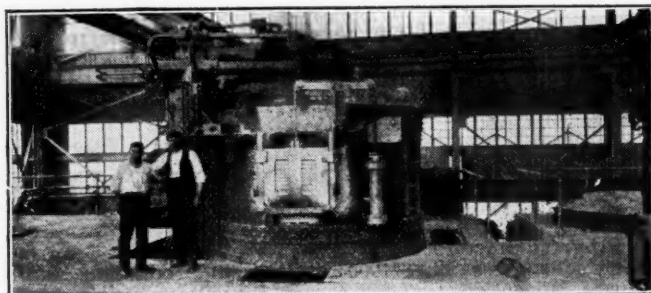
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AMERICAN BRIDGE COMPANY

71 Broadway, New York

Manufacturers of Steel Structures of all classes, particularly

BRIDGES and BUILDINGS



HEROULT ELECTRIC FURNACE

We also furnish and install

HEROULT ELECTRIC FURNACES of ONE, TWO, THREE, SEVEN, TEN, FIFTEEN and FORTY GROSS TON CAPACITIES

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CRUDE SULPHUR

Guaranteed 99½% Pure

*For use in Metallurgical field,
Fertilizer, Pulp, etc.*

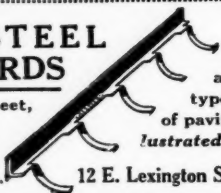
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Protect the edges of Street,
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Railway Paving.

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Various sizes
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aptable to all
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The ORIGINAL Single Opening Tilting
Mixer—ball bearing drum—pouring discharge
—fast visible mixing action.

Ask for the New Wonder Catalog.

It contains the biggest values on the market.
Write today.

CONSTRUCTION MACHINERY COMPANY

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STEEL BINS

For Sand, Gravel, Cinders, Coal, etc.



\$795

Capacity
70 Cu. Yds.

The steel bins we illustrate herewith measure 10' x 12' x 15' and have a capacity of 70 cubic yards. Height over all 22'. Truck clearance is 11' as illustrated. These bins are particularly adapted for Road Contractors, Material Yards and Coal Yards. The photograph indicates what a great time and labor saver they are, as trucks can be loaded in a very short time and eliminates double handling. Their portability is an added feature as they are all bolted together in the field, no hot rivets being required. They are far superior to wood which soon decays. Price f. o. b. Chicago \$795.00.

We also manufacture a bin with a hopper bottom having a capacity of 80 cubic yards with one opening 15" square. Essentially the same construction as the flat bottom bin. Price \$995.00 f. o. b. Chicago.

HARRIS BROTHERS CO.

1349 West 35th Street, Chicago, Ill.

PROPOSALS

BOND ISSUES
BUILDINGS
PAVING
GOOD ROADS

Bids close March 12, 1923.

U. S. ENGINEER OFFICE, Florence, Ala.—Sealed Proposals will be received here until 11 a. m., March 12, 1923, and then opened, for the construction and delivery of one steel barge 60 ft. by 22 ft. by 4 ft. Further information on application.

Bids close March 23, 1923.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C. Feb. 26, 1923. SEALED PROPOSALS will be opened in this office at 3 p. m., March 23, 1923, for furnishing and installing metal grilles and screens for windows, for the United States Veterans Hospital at Tuskegee, Ala. Drawings and specifications may be obtained from the Superintendent of Construction at Tuskegee, Ala., or at this office in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

Bids close March 15, 1923.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C. February 26, 1923. SEALED PROPOSALS will be opened in this office at 3 p. m., March 15, 1923 for the installation complete of one full magnet electric freight elevator for the U. S. Court House and post office at Altoona, Pa. Drawing and specifications may be obtained at this office in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

Bids close March 6, 1923.

\$25,000 6% Water and Light Bonds

New Albany, Miss. The City of New Albany, Mississippi, offers for sale \$25,000.00 6%, Ten Year serial Water and Light Bonds, dated July 1, 1923, with all interest payable semi-annually. The revenues of the city water and light plant are specifically pledged for their prompt payment, as is also the full faith and credit of the City and its revenues.

Bids will be received for the purchase of said bonds, or as much as may be necessary to sell, until 12 o'clock M. March 6th, 1923, by the undersigned Clerk of said City.

T. E. MARSHALL,
City Clerk.

Bids close March 5, 1923.

\$40,000 5¼% Refunding Bonds

West Point, Miss. On March 5th, 1923, at the Court House in West Point, Mississippi, the Board of Supervisors of Clay County, will offer for sale \$40,000 of refund bonds of said County, said bonds to be dated May 1st, 1923, and to mature serially from one to twenty-five years, to bear 5¼% interest payable semi-annually. All bids must be sealed and delivered to the Clerk of said Board by 2 o'clock, P. M., March 5th, 1923. Certified check for \$1000 must accompany each bid.

L. J. HOWARD, Clerk.

Bids close March 12, 1923.

Street Paving

Proposals will be received by the City of Burlington, North Carolina until 2 o'clock P. M. Monday, March 12th, 1923, for grading and paving certain streets with either sheet asphalt or cement concrete.

The work will embrace approximately 17,500 square yards of pavement. 11,000 lineal feet of combined concrete curb and gutter, storm drains and accessories.

Plans will be on file and may be seen at the office of the Mayor, at Burlington, N. C. or at the office of The Ludlow Engineers, Winston-Salem, N. C. after March 1st, 1923. After that date copies of the Specifications may be obtained from the Engineer or Mayor.

Each bid must be accompanied by a certified check in the sum of approximately 5% of the amount of the bid.

Proposals will be opened publicly with the usual rights reserved.

EARL B. HORNER, Mayor
W. M. WILLIAMS, Chm. St. Com.
Burlington, N. C.

THE LUDLOW ENGINEERS,
Winston-Salem, N. C.

RATE: 35 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 4 P. M., Monday.

DAY LETTER: When too late to send

copy by mail to reach us by 4 P. M.

Monday, forward by day letter.

THE DAILY BULLETIN OF THE

MANUFACTURERS RECORD:

Published every business day; gives

information about the industrial,

commercial and financial activities of

the South and Southwest.

The Daily Bulletin can be used to

advantage when copy cannot reach

us in time for publication in the

Manufacturers Record before bids

are to be opened, or when daily pub-

lications are necessary to meet legal

requirements.

The same rate applies—35 cents. per

line per insertion.

Bids close March 14, 1923.

Road and Bridge Construction

OFFICE OF THE STATE HIGHWAY
DEPARTMENT.

Richmond, Va., February 20th, 1923.

Sealed bids will be received at the offices of the State Highway Dept. 413 N. 10th St., Richmond Va., until 10:30 A. M. Wednesday March 14th, 1923, for the construction of:

1. PROJ. S-155 RT. 2 Cunningham Creek—Coopers Store (Not including Bridge over Raccoon Creek) 1.5 ml. of soil road in Fluvanna Co. approx. 0.3 Ac. of Clear and Grub. 16750 cu. yds. Excav. 35 cu. yds. "A" conc. 4 cu. yds. "B" conc. 132 lin. ft. V. C. Pipe 3003 reinf. steel 1050 lin. ft. Wood Gd. Rail. Certified check for \$750.00.

2. (a) PROJ. S-209 RT. 19 Columbia—Five 6.5 ml. soil in Fluvanna and Goochland Cos. approx. 10.4 Ac. Clear and Grub 58534 cu. yds. Excav. 776 lin. ft. V. C. pipe 584 lin. ft. C. I. pipe 89 cu. yds. "B" conc. 131 cu. yds. "A" conc. 6984 lbs. reinf. steel 4196 lin. ft. Wood Gd. Rail. Cert. check \$4000.

2. (b) PROJ. S-209 RT. 19 Br. over Bird Creek 153 ft. long approx. 58,000 lbs. structural steel 137 cu. yds. "A" conc. 191 cu. yards. "B" conc 9822 lbs. reinf. steel. Cert. check \$500.

3. PROJ. F-160 B. & C. RT. 5 Franklin-Suffolk 9.7 ml. 18' 8-6-8 inch conc. road in Isle of Wight and Nansemond Cos. approx. 10 Ac. Clear and Grub. 29144 cu. yds. Excav. 118977 cu. yds. Borrow. 328 lin. ft. V. C. or C. I. Pipe lin. ft. C. I. Pipe 222 cu. yds. "A" concrete 138 cu. yds. "B" Conc. 13768 lbs. reinf. steel 5300 lin. ft. Wood Gd. Rail Cert. check \$5000.

3. (b) Br. over Kingslake Swamp 38 ft. long approx. 49 cu. yds. "A" conc. 77 cu. yds. "B" conc. 9285 conc. lbs. reinf. steel Cert. check \$500.

4. PROJ. S-265 RT. 11-X Grundy—Hanger. 5.5 ml. 16'-8" Bit. Mac. in Buchanan Co. approx. 6 Ac. Clear and Grub 68975 cu. yds. excav. cu. yds. Borrow. Cert. check \$4,500.

5. PROJ. S-287 RT. 11-Z Donkey—Dickenson Co. Line (Not including Bridge over Pound River, 4.8 ml. 16'-8" Bit. Mac. road in Wise Co. approx. 15 Ac. Clear and Grub. 1572 lin. ft. V. C. pipe 708 lin. ft. C. I. Pipe 63 cu. yds. "A" conc. 122013 cu. yds. Excav. 6587 lbs. reinf. steel 4990 cu. yds. rubble masonry 12090 lin. ft. Gd. Rail. Cert. check \$5000.00.

6. (a) PROJ. S-214 RT. 2 Coopers Store—Fork union 6.6 ml. soil road in Fluvanna Co. approx. 6 Ac. Clear and Grub. 38105 cu. yds. excav. 1280 cu. yds. Borrow 808 lin. ft. V. C. Pipe 208 lin. ft. C. I. pipe 39 cu. yds. "B" conc. 630 lin. ft. Gd. Rail Cert. check \$5000.

6. (b) PROJ. S-214 RT. 2—Br. over Carys Branch Sta. 170 Three 30" beams spans approx. 152 cu. yds. "A" con. 28680 lbs. reinf. steel. Cert check \$500.00.

7. PROJ. F-157 RT. 9 Toano-Diascund Creek 4.3 ml. 18' 8-6-8 inch conc. road in James City Co. approx. 17 Ac. Clear and Grub. 61146 cu. yds. Excav. 3745 cu. yds. Borrow 480 lin. ft. V. C. pipe 234 lin. ft. C. I. Pipe 497 cu. yds. "A" concrete 23 cu. yds. "B" conc. 34967 lbs. reinf. steel. Cert. check \$5000.

8. PROJ. F-271 RT. 11—Claypool Hill—Rosedale 5.08 ml. of surface treated mac. in Tazewell and Russell Cos. (Not including Special Design Bridges) Cert. check \$5000.

9. PROJ. F-178 Br. RT. 1 Br. over Grassy Creek lt. 122 ft. in Mecklenburg Co. 84000 lbs. Structural Steel; 2410 lbs. reinf. steel, 51.7 cu. yds. "A" conc. 12,420 ft. B.M. lumber 24.4 lin. ft. Gd. fence 40 cu. yds. rip-rap. Cert. check \$900.

Bid bond 20% in excess of check required.

Plans and spec. are on file at the office of the State Highway Dept. Richmond and District Offices as follows S155 and S214 Culpeper S209 and F178 Richmond F160 B&C and F157 Suffolk S265 S287 and S271 Bristol.

Plans for bidders can be obtained upon receipt of \$5 payable to H. G. Shirley. \$2.50 will be refunded if the plans are returned in good condition within 2 weeks after bids are opened. Bridge plans on Special Design Bridges from W. F. Hobart 805½ E. Franklin St., Richmond at 54c. each.

Engineers will show prospective bidders over projects as follows: F-178 Clarksville Hotel Clarksville 10:30 A. M. Feb. 23 P-S155 and S214 Palmyra 10:30 A. M. Tues. March 6th P-S209 Fife 9:30 A. M. Wed. March 7th, P-F157 Providence Forge 9:30 Mon. March 12th F160 B&C Dist. Office Suffolk 10:00 A. M. Fri. March 9th. Pr. S265 Stinson Hotel Grundy NOON Tues. March 6th S287 Wrights Store Donkey NOON Thurs. March 8th F271 Pounding Mill Station 11:00 A. M. Thurs. March 1st.

Plans and proposals on the projects will not be available until February 26th.

The State Highway Commission reserves the right to reject any or all bids.

C. S. MULLEN, H. G. SHIRLEY
Acting Commr. Chairman

Bids close March 6, 1923.

Road Oiling

STATE OF MARYLAND
STATE ROADS COMMISSION
NOTICE TO CONTRACTORS

Baltimore, Md.

Sealed proposals for oiling 5 sections of State Highway, as follows, requiring approximately 576,127 gallons of oil:

District No.	Counties	Miles Gallons
1 and 2	Cecil, Queen Anne, Somerset, Talbot, Wicomico, Worcester	24.76 48,381
3	Montgomery and Prince George	35.10 66,145
5	Carroll, Frederick, Howard, Montgomery	111.01 213,976
6	Garrett, Allegany, Frederick, Washington	60.45 120,912
4 and 7	Anne Arundel, Baltimore, Harford	57.35 126,713
		288.67 576,127

will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 6th day of March, 1923, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans will be furnished by the Commission upon application.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland, respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 21st day of February, 1923.

L. H. STEUART JOHN N. MACKALL,
Secretary. Chairman.

Bids close March 19, 1923.

Water Main Extension

North Wilkesboro, N. C.

Town of North Wilkesboro, N. C. will receive bids up to and including March 19, 1923, 8 o'clock P. M. for contract for the extension of water main to cost approximately twelve thousand dollars (\$12,000).

Plans and specification can be had from City Clerk,

S. L. PARDUE.

Bids close March 21, 1923.

Water Works Improvements

Roxboro, N. C.

Sealed Proposals will be received by the Mayor and Board of Commissioners of the Town of Roxboro, North Carolina, until 2 o'clock P. M. Wednesday, March 21st, 1923 for developing a new source of water supply. The principal items entering into the work are as follows:

Laying 20,000 feet of 12-inch cast iron B&S water pipe.

Building concrete and brick filter plant; concrete and brick pumping station; concrete reservoir; and

earth dam with masonry spillway.

Furnishing and erecting filter equipment.

Furnishing and installing one 500 GPM centrifugal pump with electric motor and one 500 GPM centrifugal pump with gas engine drive.

Clearing impounding reservoir site—60 acres.

Plans will be on file and may be seen at the office of The Ludlow Engineers at Winston-Salem, N. C. or at the office of the Mayor at Roxboro, N. C. after March 1st. After that date copies of the Specifications, Bid Blank, and Contract Form may be obtained from the Engineers.

For the convenience of prospective bidders the Engineers will furnish full set of blue print copies of the plans upon application accompanied by a check for \$7.50 to cover the cost, or separate prints at \$1.00 each.

Each bid must be accompanied by a certified check payable to the Treasurer of the Town of Roxboro in the sum of \$4000 with complete bids, or approximately 5% of the amount of partial bids.

Proposals will be opened publicly with the usual rights reserved.

DR. W. A. BRADSHAW

The Ludlow Engineers. R. G. COLE

Winston-Salem, N. C. R. L. HARRIS

J. L. LUDLOW, Water Works Committee

Consulting Engineer.

Bids close March 20, 1923.

Water and Electric Light Improvements

Rayne, Louisiana.

Sealed proposals will be received by the Mayor and Council of the City of Rayne, Louisiana at the office of the City Clerk for constructing improvements to the Water and Electric Light plant improvements in and for the City of Rayne, Louisiana until 10:00 A. M. Tuesday March 20th, 1923, at which time they will be opened and read publicly.

The work consists of furnishing all labor, material and equipment of every kind necessary in accordance with plans and specifications of the Engineers.

The equipment and approximate quantities of materials are as follows:

- 1 - Power House of brick
- 2 - 200 HP. or 1—300 HP. oil engine generator unit
- 1 - 3 panel or 1—two panel switchboard,
- 1 - Deep Well
- 1 - 750 GPM deep well centrifugal pump and motor
- 1 - 750 GPM Booster pump and motor
- 1 - Air lift system for 750 GPM.
- 1 - 750 GPM. fire pump and motor as alternate

16464-feet 6" Class B Cast iron pipe

732-feet 8" Class B Cast iron pipe

Specials.

43-Standard fire hydrants

24-8" and 6" Gate valves and boxes,

Each bid must be accompanied by a certified check on a bank satisfactory to the City Council, or bidders' bond for 5% of the amount of the bid.

A bond in the sum of 25% of the amount of the contract will be required for the faithful performance of the work.

Copies of plans and specifications may be seen at the office of the City Clerk, or obtained from the office of the Engineers on deposit of \$5.00 which will be refunded to bona fide bidders on return of plans and specifications.

The City reserves the right to reject any and all bids.

CITY OF RAYNE, LOUISIANA

A. C. CHAPPUIS, Mayor

JOE DUCLOS, Clerk

THE J. B. McCRARY COMPANY
Engineers.

Bids close March 5, 1923.

Water and Sewer Lines

Greensboro, N. C.

Proposals will be received by the City Council of Greensboro, North Carolina, until 2:30 o'clock P. M., Monday, March 5, 1923, for constructing the following approximate amount of water and sewer lines in the City of Greensboro, North Carolina:

7 miles of cast iron water pipe consisting of 6, 8, 12, 14 and 20 inch pipe.

5 miles of sewer pipe consisting of 6, 8, 10 and 12 inch pipe.

Specifications can be secured by applying to M. M. Boyles, Water Engineer, City Hall, Greensboro, North Carolina, in whose office, plans and profiles are on file for consultation.

Each bid must be accompanied by a certified check in the sum of Five Thousand Dollars (\$5000.00) made payable to the City of Greensboro, N. C.

All bids shall be sealed and marked on the outside, "Bids for Construction of Water and Sewer Lines," and addressed to P. C. Painter, City Manager, Greensboro, North Carolina.

Bids will be opened publicly and read at the City Hall on Monday, March 5, 1923, at 2:30 o'clock P. M. The City reserves the right to accept or reject any or all bids.

P. C. PAINTER,

City Manager,
M. M. BOYLES,
Water Engineer.

Bids close March 5, 1923.

High School Building

Cheraw, S. C.

Sealed proposals will be received by the Chairman of the School Board of Cheraw, S. C., on Monday, March 5, 1923, 12 o'clock, at Cheraw, S. C., for the erection, heating and plumbing of a new High School Building for the town of Cheraw, S. C., according to plans and specifications prepared by W. J. Wilkins & Co., Architects, Florence, S. C.

Plans and specifications may be secured by the Contractors upon a deposit of a certified or cashiers check for twenty-five (\$25.00) dollars, which deposit is to be returned upon the submission of a bona fide bid and the return of the plans and specifications in good condition to the Architects office.

Proposals for the erection of the building shall be accompanied by a certified check of two thousand (\$2000.00) dollars, and proposals for heating and plumbing shall be accompanied by a certified check for five hundred (\$500.00) dollars; said checks to be made payable to the order of R. T. Caston, Chairman. No proposals will be accepted unless accompanied by the above mentioned check, and no bid bonds will be accepted. Bond will be required of the successful bidders in the amount of one fifth (1/5) of contract price. The right is reserved to reject any or all bids.

Plans may be secured from the Architect's office.

R. T. CASTON, Chairman.

Bids close March 15, 1923.

High School Building

Sealed proposals will be received by the Trustees of the Clio School District No. 9, Clio, Marlboro County, South Carolina, on Thursday, March 15th, 1923, at two (2) P. M. in Clio, S. C. for the erecting and heating of a high school building of fourteen rooms, according to plans and specifications prepared by Willis Irvin, Architect, 617-18-19-20 Lamar Building, Augusta, Ga.

Plans and specifications may be secured by Building Contractors upon a deposit of \$25.00 and by Heating Contractors upon a deposit of \$10.00 which deposits are to be returned upon the submission of a bona fide bid and the return of the plans and specifications in good condition to the Architect. Building Contractors may secure extra sets of plans upon a payment of \$5.00 per set to cover printing costs; these plans to remain the property of the Architect. Plans will be on file in the office of the Atlanta Builders Exchange, Atlanta, Ga.; the Columbia Builders Exchange, Columbia S. C.; the Raleigh Builders Exchange, Raleigh, N. C.; the Charlotte Builders Exchange, Charlotte, N. C.; the office of Willis Irvin, Architect, Augusta, Ga., and H. J. Bennett, Chairman, School Trustees, Clio, S. C.

Proposals for the erection of the building shall be accompanied by a certified check of \$1,000.00 and proposals for the heating shall be accompanied by a certified check for \$250.00; said check to be made payable to H. J. Bennett. Bonds will be required of the successful bidders. The right to reject any or all bids is reserved.

H. J. BENNETT, Chairman,
Clio School District No. 9, Clio, S. C.

Bids close March 10, 1923.

Public Library

Sealed proposals received at Noon, March 10th, 1923, for erection of public library building, Rocky Mount N. C., for Rocky Mount Public Library Association. Drawings and specifications seen at office of Wilson and Berryman, Architects, 804 Palmetto Bldg., Columbia, S. C., and at 105 Davis Bldg., Wilson, N. C. F. E. Winslow, Chairman of Building Committee, Rocky Mount, N. C.

Bids close March 28, 1923.

Junior High School Building

Proposals will be received for the construction of a Junior High School Building in the city of Ashland, Kentucky until noon March 28, 1923.

Interested parties are requested to communicate with the Architects, Tyson & Foster, Grand Theater Bldg., Ashland, Kentucky.

Bids close March 19, 1923.

Two School Buildings

Vicksburg, Miss.

Sealed bids will be received at the office of the City Clerk of the City of Vicksburg, Mississippi, up to 4 o'clock, P. M. March 19th, 1923 for the construction and erection of two public school buildings in the City of Vicksburg. Plans and specifications can be secured from the City Clerk upon a deposit of \$25 for each set of plans and specifications, the said deposit of \$25 to be refunded when the same are returned to the City Clerk.

Certified check for 2% of the amount of bid must accompany same.

The Board reserves the right to reject any and all bids.

J. J. HAYES,
Mayor.

Bids close March 22, 1923.

Steel Framing

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans at their office, Suite 200 New Court Building, until 3:00 P. M. March 22, 1923, and then publicly opened for furnishing, erecting and painting of the steel framing required for the wharf structure at Poland Street Landing.

A deposit of \$2,000 in cash or certified check is required with each proposal.

A bond to the amount of 50% of the sum bid is required with notarial contract.

Specifications and proposal forms are on file in the office of the Supervisor of Purchases at No. 1 Canal Street, New Orleans, Louisiana. Complete sets will be furnished to prospective bidders on deposit of \$5, which will be refunded to depositors who submit proposals, or return sets in good condition.

The right is reserved to reject any or all bids and to waive informalities.

J. A. WALSH,
General Manager.

Bids close March 6, 1923.

Oil Engine Equipment

New Albany, Miss.

The City of New Albany, Mississippi, is going to install Oil Burner Engine and equipment complete by which it will operate its Electric Light Plant and Water Works for the city.

The Engine is to be approximately 200 H. P. and equipment to correspond. Specifications are on file with the undersigned Clerk of the City Board and bids to be received until 12 o'clock M. March 6th, 1923.

T. E. MARSHALL,
City Clerk.

Bids close March 5, 1923.

Cast Iron Pipe, Castings and Valves

Marion, N. C.

Notice—Sealed bids for furnishing 1400 tons of bell and spigot cast iron pipe CLASSES C, D, E AND F. ALSO SPECIAL CASTINGS AND VALVES. WILL BE RECEIVED UNTIL TWELVE NOON, MARCH 5th.

Blank forms and specifications can be had by addressing L. A. Neal, Secretary & Treasurer, Town of Marion, N. C.

CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS WATER POWERS, MISCELLANEOUS PROPERTIES

New Mexico ranch, 153,000 acres, \$3.50 per acre. Splendid grazing, timber, irrigation and mining proposition. Reasonable terms. Also other ranches. C. E. McGinnis, Roy, New Mexico.

COAL LANDS AND MINES

FOR SALE—Going coal mines—coal, oil and gas lands—timber tracts. Reports made on same anywhere. E. H. Morris, Box 518, Charleston, W. Va.

FOR SALE: Well equipped Elkhorn mine, Pike County, Ky. Free of contracts or selling agency. Illness of operator accounts for his desire to retire. Address Elkhorn—1207 First Natl. Bank Bldg., Cincinnati, Ohio.

FOR SALE. First class operating coal mine on C. & O. Railway, No. 5 Block seam. Well equipped. Will exchange for good real estate notes or improved property. Only reason for selling is because owner does not know coal business. No brokers need apply. P. O. Box 407, Charleston, West Va.

TIMBER AND TIMBER LANDS

FOR SALE—Forty thousand acres virgin Long Leaf Pine, estimated to cut one hundred million feet. Also fifty thousand acres cruised at ninety million feet, Long Leaf Pine, and seventy-five million feet of hardwoods and Cypress. F. W. Blair, 808 West 6th St., Chattanooga, Tenn.

FOR SALE—1500 acres timber on Pennsylvania R. R. with private siding—10 million feet hardwood—one million feet pine.—E. M. Moore, Westover, Md.

TIMBER OPERATIONS

FOR SALE—30 million Feet Long Leaf Yellow Pine Timber. 17½ Crops Turpentine now going, 2 million feet cypress, 25 thousand foot daily capacity saw mill, modern plant. Timber on railroad and navigable stream. We own this in fee, it is on 5500 acres land, logging conditions ideal, good healthy location. Priced right, terms to reliable parties. Address W. S. Carter & Company, Brinson, Ga.

FARM AND TIMBER LAND

FLORIDA—Timber, Colonization and Fruitland tracts any size; best in Florida. MAURER & COMPANY, Orlando, Fla.

FARM, FRUIT, AND TRUCK LANDS

FLORIDA

FLORIDA—Did you know that Florida is developing faster than any other State in the Union? It is, indeed, a land of great resources and opportunities. Come and be one of us. No coal bills, no wintry ice or snow—just sunshine, and health, and opportunity. Send for booklet "Largest Orange Tree in the World;" we have a Home, Grove or Farm for you. Tampa-West Coast Realty Co., (Inc.) opposite Post office, "Since before the War," Tampa Fla.

NORTH CAROLINA

FOR SALE—Fifty acres on Rail road at Lincolnton, plenty of water, fine elevation, good Mill site.

R. E. Costner, Mt. Holly, N. C.

SOUTH CAROLINA

Truck farms that pay dividends annually can be bought at reasonable prices here. Vegetables are shipped eight months in the year. Three and four crops are grown on the same land annually. Excellent climate and health. Plenty of labor: strikes unknown. Well organized association that sells all farm products. For particulars write, Lake Realty Company, Beaufort, S. C.

RATES AND CONDITIONS

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisement accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c. per line; 300 lines, 26c. per line; 500 lines or more, 25c. per line.

HOTEL FOR SALE

FOR SALE: At a bargain. 19 room hotel, all furnished; dining room, servant quarters, annex building and additional grounds, located on main tourist highway. Only hotel in coming Florida town. Bargain for quick sale. Address N. H. Green, Branford, Fla.

BUSINESS OPPORTUNITIES

WANTED—CAPITALIST interested in Coeprage Company and Cotton Mills or Fair Bluff, N. C. Address J. E. Dick.

WANTED:—\$3000 to \$5000, by a going concern in western Va. that wants to expand, this includes third interest in the business with or without services, this business has paid over 20% on capital invested in 1922, do not waste our time unless you mean business. Address No. 6128, Care of Manufacturers Record, Baltimore, Md.

"WANTED: Two or three saw mills, capacity ten thousand feet per day, to operate under contract in a tract of exceptionally fine timber, located in southern Virginia." Address No. 6130 care Manufacturers Record, Baltimore, Md.

FOR SALE.

The F. O. Morgan Department Store Leonardtown, Md.
Capital \$10,000 to \$15,000.
Annual Sales \$30,000 to \$40,000.
Immediate possession; clean and saleable stock in bulk; centrally located at County Seat of St. Mary's County. Best business stand in town. No debts; Insurance \$8000.00 store fixtures, including computing scales, show-cases, adding machine and acetylene gas plant included in sale.
Liberal discount to cash purchaser.
Ill health of proprietor reason for sale.
Apply to Enoch B. Abell, Leonardtown, Md.

FOR LEASE—Office space in Rhodes Building and loft space in adjoining connecting building, fireproof, steam heated, on main thoroughfare, three blocks from center of city, especially adapted to Manufacturer's Agents, carrying stocks or samples. Let us furnish particulars as to service rates, etc. A. G. Rhodes & Son, 202 Rhodes Building, Atlanta, Ga.

"THIS CHANCE comes only one time in life" will take in partner who can furnish \$150,000 to pay for and develop 1200 acres of coal. Five feet Elkhorn and six feet No. 4 two other clean seams four feet each, can ship coal on this amount. J. L. Oldham, Whitesburg, Letcher Co., Ky.

BUSINESS OPPORTUNITIES

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Washington, D. C.

M. B. HARLOW,
Harlow Building, Colorado Building,
Alexandria, Va. Washington, D. C.

MACON, GA., Wanted Company or tenant to lease or operate cold storage and warehouse proposition. Owner will construct \$300,000 concrete building in units to suit tenant. Located within three blocks of retail business center, ample sidetrack facilities. Best distributing point in Georgia. Unusual Proposition.
MURPHEY, TAYLOR AND ELLIS.

PRINTING

VOUCHER CHECKS 1000 for \$17.50 Hammermill SAFETY Paper Used. Send today for specimen check and paper. Old Deerfield Bond letterheads \$7.50 per M. The Quality Printery Hot Springs, Ark.

COLLECTIONS

"Send your past due accounts to us for collection. Commission basis. Correspondents everywhere. Herbert Co., Rand McNally Building, Chicago, Ill.

FINANCIAL

SOUTHERN MILL STOCKS BANK STOCKS BONDS.

25 years' experience in this field.
F. C. ABBOTT & CO.,
Charlotte, N. C.

"INCORPORATE any enterprise under common law; any capital, transact business any state; no corporation taxes; no personal liability; keep control; very reasonable. Booklet free. Reinshagen, 2 Rand McNally Building, Chicago, Ill."

Valuable text books on the "Money Question". The most vital question affecting the welfare of the people.—"Daniel on Real Money". New edition being published. "High Cost of Living, Cause-Remedy," 75c. "The Betrayal of the People in the Federal Reserve Act," 25c. "The Real Issue—Democracy vs. Plutocracy," 25c. No Plutocratic Peace But a Democratic Victory," 20c. The Monetary Educational Bureau, Kellogg Building, Washington, D. C.

Want connection with parties who loan money on City, Suburban property, sub-divisions or for building purposes. Gilt Edge Proposition.

CARR REALTY COMPANY
P. O. Box 518 Charleston, W. Va.

INDUSTRIES WANTED

PONCA CITY, OKLA., offers financial assistance to worthy industries that can stand investigation. Has abundance of splendid water, sites and longtime fuel oil contracts; also natural gas. On main line Santa Fe railroad between Kansas City and Gulf. Population 12,000. Address Chamber of Commerce, Ponca City, Okla.

TEXTILE MILLS WANTED.

Big inducements to offer mills desiring to locate in the South. Best climate and living conditions—ample native born labor at cheap wages—unlimited hydro-electric power at low rates—best grade North-East Georgia cotton grown in this section.

Inducements will be offered on tax exemptions—good locations on main and branch lines of Southern R. R. are available—full co-operation of citizenship—Toccoa, Georgia has real inducements to offer investors in the cotton mill industry. Write Kiwanis Club of Toccoa, Georgia.

INDUSTRIES WANTED

INDUSTRIES WANTED.

INVESTIGATE Boonville, Missouri, before deciding upon location for any factory or other industry you may be contemplating. Ideal conditions, and co-operation afforded. Address H. C. Neff, Secy., Chamber of Commerce, Boonville, Mo.

WASHINGTON, GEORGIA — In the heart of the cotton fields. Surrounded by pulp woods and hardwoods. Native white labor. No unions. No strikes. Cheap power available. The ideal location for cotton mills, pulp mills, furniture factories and other manufacturing enterprises. Write. Come and look us over. KIWANIS CLUB.

INDUSTRIAL PLANTS

"FOR SALE, or make part exchange for income property. "D" Handle Factory in Houston, Texas. Factory building 70 x 100 feet besides boiler and engine room, also a line of Mill mch. Full particulars, write Indiana Handle Co., Houston, Tex.

FOR SALE OR LEASE. Nearly new 40,000 capacity brick plant near Shreveport, La., have never supplied demand for brick. Good opportunity for parties who know the business. Address P. O. Box 404 Winnfield, La.

FOR SALE—ON EASY TERMS

Modern two story brick building 55 by 310 feet regular mill construction, fully sprinkled, large platform and sidetrack facilities for eight or ten cars. Large elevator. Adjoining this building is a single story brick building 50 by 90 feet, with boiler room in one section, balance concrete floor. This is an excellent plant and especially suitable for hosiery or knitting mill, located in best city in North Carolina.

J. E. LATHAM CO. OWNERS
Greensboro, N. C.

FACTORY SITES

BALTIMORE

FACTORY
SITES

William Martien & Company,

1413 Lexington Bldg.,

Baltimore, Md.

Factory sites free. Best shipping facilities in middle west. Three R.R.N.Y. Central, Wabash, Pennsylvania. On Toledo to Chicago pike. We will assist in getting you started. Butler, Indiana, Business Association Men.

JACKSONVILLE, FLORIDA

For sale or Lease, plot 250 by 1200 feet, centrally located on deep water and railroad yards. Exceptional location for factory, warehouse or terminals. Myron L. Howard, Box 1115.

PATENT ATTORNEYS

PATENTS, TRADE-MARKS AND COPYRIGHTS—Write for our Free Illustrated Guide Book and EVIDENCE OF CONCEPTION BLANK. Send model or sketch and description of your invention for our opinion of its patentable nature free. Highest references. Prompt service. Reasonable terms. Victor J. Evans & Co., 712 9th St., Washington, D. C.

PATENTS—Booklet free. Highest references. Best results. Promptness assured. Watson E. Coleman, Patent Lawyer, 624 F St., Washington, D. C.

PATENT SENSE

"The Book for Inventors and Manufacturers." FREE. WRITE LACEY & LACEY, Dept. 15, Washington, D. C. Est. 1869.

PATENT ATTORNEYS

INVENTORS—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for patent. Book, "How to Obtain a Patent" sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years. Chandler & Chandler, 412 7th St. N.W. Washington, D. C.

AGENCIES WANTED

MANUFACTURERS AGENT with office in Rochester, N. Y. calling on manufacturers in Rochester and central New York, desires to represent reputable company in this section. Add. 121 Central Bldg., Rochester, N.Y.

If you want wide-awake, reliable representation in the Southwest we are open for propositions. Give full details in first letter. Blinberry & Penny, Box 827, El Paso, Texas.

Manufacturers, Brokers or Supply Houses, who desire live representation in North Carolina are invited to correspond with Walter Dickson, Box 1675, Winston-Salem, N. C.

MANUFACTURERS' AGENTS. — Wanted in every industrial state, acquainted with the trade to sell a high grade complete line of OXY-ACETYLENE WELDING AND CUTTING EQUIPMENT. Address No. 6134 care Manufacturers Record, Baltimore Md.

WANTED:—A side line to carry in connection with present line—preferably biologics, pharmaceuticals or drug sundries in five states: North Carolina, South Carolina, Georgia, Alabama and Florida. Address P. O. Box 1533, Atlanta, Ga.

SITUATIONS WANTED

SUPERINTENDENT or Chief Engineer Power Plants. At present employed by large Eastern Railroad in complete charge over fifty power plants. Possess practical and theoretical knowledge Engines, Boilers, Turbines, Stokers, Oil Firing. Also complete knowledge Motive Power and Construction Work. Presently holding first class licenses. Willing to go anywhere and can furnish excellent references. No. 6131 care Manufacturers Record.

A position wanted by an experienced grading and track foreman, can also run a boarding camp for the laborers. Address No. 6135 care Manufacturers Record.

Superintendent or Asst., age 40 technically trained, 18 years practical field experience in construction, operation, and maintenance of crusher and concentrating plants with power installation—competent in quarry and pit operation, efficient training and organizing of operating crews, available now. A. 1 references. Address No. 6133 care Manufacturers Record, Baltimore, Md.

YOUNG MAN.—For past 12 years engaged in teaching desires change to business line. Manufacturers or distributors of high-class products who wish widely acquainted resident representative in Shenandoah Valley of Virginia are invited to investigate. Address P. O. Box 193, Harrisonburg, Va.

MEN WANTED

Salaried positions \$2500 to \$25,000 upward; executive, technical, administrative, engineering, manufacturing, professional managing, financial, etc., all lines. If you are qualified, and receptive to tentative offers for a new connection, you are invited to communicate in strict confidence with the undersigned, who will conduct preliminary negotiations for such positions. A method is provided through which you may receive overtures in confidence, with out jeopardizing present connections, and in a manner conforming strictly to professional ethics. Send name and address only; preliminary particulars will be sent without obligating or compromising you in any way. R. W. Bixby, Inc., 403 Lockwood Building, Buffalo, N. Y.

QUALIFIED EXECUTIVES, all lines, seeking new connections may use to advantage our confidential and individual service with fullest ethical assurance. Inquiries invited. Pen-Mac Co., Hendersonville, N. C.

MEN WANTED

"HELP WANTED.—Capable detailer and estimator for structural steel, ornamental iron and fireproofing specialties, etc. used in building construction. Opening also for salesman in above materials and contractors' equipment. Give experience, full personal data salary desired, date available, etc. in first communication. P. O. Box 46, Greensboro, N. C."

"SALESMEN. Positions open for one or more men under 30 years of age who have had several years of sales experience. Company well established in strong trade position. Opportunity for advancement to executive position. Knowledge of steel not necessary but proved sales ability essential. Address: Vice President in Charge of Sales, Colonial Steel Co., Pittsburgh, Pa.

LARGE and long established lumber company, having acquired interests in Mexico, wants business manager for Mexican operations. Not necessary to be lumberman, but must know how to figure costs. Address, with qualifications, salary expected, etc. No. 6132 care Manufacturers Record, Baltimore Md.

TWO OR THREE BUILDING SUPERINTENDENTS WANTED

We find it necessary to increase our organization to take care of extensive building operations through the Southeast and need two or three men who have a thorough knowledge of building construction and labor conditions in the South. Must have good personality and unquestionable references as to reputation and ability. Prefer men between 30 and 40 years of age. Address No. 6123 care of MANUFACTURERS RECORD, Baltimore, Md.

"Wanted—Sales Engineer with experience in Concrete and Steel design. Position permanent. Remuneration in proportion to ability and results obtained. Furnish photograph, past experience, and also age. Apply—Southern General Fireproofing Co., 263 Decatur St., Atlanta, Ga."

SUPERINTENDENT WANTED—A good practical Semi-technical man for local Superintendent for Sulphur-fertilizer plant in Texas. Should be able to lay Service railroad, operate a narrow gauge line with gasoline engine motor, know how to quarry rock, and handle it through the mill which consists in grinding dry in a Hardinge conical mill, and sacking for shipment. Good chance for advancement as business is growing. Address No. 6127 care Manufacturers Record, Baltimore, Md.

MACHINERY AND SUPPLIES

FOR SALE:—COMPLETE LIGHTING PLANT & WATER WORKS EQUIPMENT. Boiler: 1—100 HP. 66"x16". R. D. Cole Co. now carries Hartford Insurance for 125 lbs., no patches or blisters. Half arch front all complete with stack and regular fittings.

ENGINE: Hamilton Corliss, 150 HP. 12 x 30 belt-fly wheel 10' x 18".

HEATER:—Cochrane Open Feed Water, 100 HP.

GENERATOR: 1—100 KW. 900 RPM. 2300 V. 3 PH. 60 Cyc. Ft. Wayne Belted with 5 KW. 125 V. 1800 RPM Ft. Wayne Exciter and with marble Sw. Bd. Panel with automatic oil Sw. and also control for street series lighting circuit.

REGULATOR: 1—10 KW. Ft. Wayne Series Street Lighting, 6.6 amps.

PUMPS: 2—8 x 12 & 8 1/4 x 15" Platte Iron Wks., Duplex Compound Steam Water Works Pumps.

PUMP: 1—6 & 4 x 6" Gardner Duplex Boiler Feed Pump.

BELTS: 2—16" Heavy Double Endless Leather, each about 80' long.

All of the above equipment is in very good condition, just recently taken out of service on account of new crude oil plant installed.

CITY OF MILLEN, GA.
City Engineers.

MACHINERY AND SUPPLIES WANTED

WANTED—at once—500 to 1,000 lin. ft. steel Curb and Gutter forms, "second hand" send description and prices in first letter. R. G. Rand, East Flat Rock, N. C.

WANTED.—Complete Equipment for making ICE, want plant of 20 to 40 ton capacity.

J. L. DORSEY, Fayetteville Tennessee.



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Manufacturers Record, Baltimore, Md.

FOR SALE—The most desirable location in Char- leston, S. C., for Wholesaler or Manufacturer—

Property has 126 feet frontage on Meeting street, the main artery of city. 200 feet depth, abutting on main tracks of Southern Railway. Within two blocks of very center of city. Admirably well suited for use of Wholesaler or Manufacturer.

Address: John I. Cosgrove, Attorney, Charleston, S.C.

COAL

208 acres, one mile from Buckhannon, West Virginia, with two veins of coal. One vein located 25 feet above the Baltimore and Ohio Railroad which runs through the farm. Very attractive proposition. For sale to first buyer. Ask for analysis.

JACOBS REALTY COMPANY

204 S. Second St.

Clarksburg, W. Va.

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700 WATER POWER 700

COMBINED WITH
MAGNIFICENT COUNTRY LODGE

This property is located at Clarksville, Georgia, Habersham County, on branch line of the Southern Railway, eight miles from the main line, and is 1600 ft. above the sea level. The acreage is 370 acres, some rugged, level and open land—abundance of timber. The water power, undeveloped at the present falls is 738, but this can be increased by narrowing the head fall.

The residence contains 15 rooms, all modern conveniences, flower and fruit hot houses, bowling alley, ample servants quarters, barns, dairy, etc. The entire premises are in A-1 condition, owned and occupied by the present owners for the summer months for many years past, and used by them as a pleasure resort.

The acreage in this property consists of two adjoining tracts, the water power tract 228 and residence tract 144.

We have photos, maps, etc., which will be furnished upon request.

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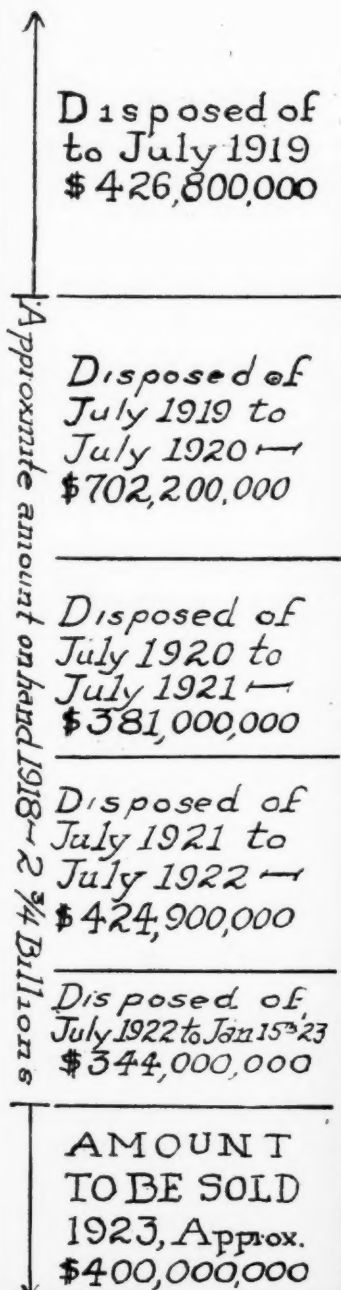
—and the wareh

WITH minimum interference to established industry, the War Department, to date, has disposed of over two billion dollars' worth of its commodities that were choking Army warehouses when the Armistice was signed. The amount reclaimed for the Treasury represents 41 percent of the cost of the materials disposed of to date.

This remarkable accomplishment was made in the face of adverse market conditions existing during a good part of this four-year period of liquidation.

About 400 million dollars' worth of these commodities remain to be sold. It is the plan of the War Department to wipe the slate clean and go out of the jobbing business sometime in the next few months. However, there will be no particular rush

The graph at the left is merely an approximation scaled in round numbers, and should not be construed as a dollar-for-dollar record.



WAR DEEP



house shelves are not yet bare

about it. The same methods of sale, backed by the same policy that has so successfully regulated the liquidation of these vast stocks of materials to date, will be adhered to in disposing of this 400 million dollars' worth of merchandise, industrial equipment and real estate.

A lot of this material is scheduled for sale in early Auctions and Sealed Bid Sales, the earliest of which appear in the panel on this page. To be fully informed in regard to these sales, send for the various catalogs as directed in the panel. To make doubly sure, send your name and address to Major J. L. Frink, Chief, Sales Promotion Section, Room 2515 Munitions Building, Washington, D. C., advising him just what sales and commodities interest you. You will then receive catalogs as soon as they leave the press.



WAR DEPARTMENT

MARCH

- 6—Q. M. SUPPLIES, Brooklyn, N. Y., Auction. For catalog write Q.M.S.O., 1st. Ave. & 59th. St., Brooklyn, N. Y.
- 9—Q. M. SUPPLIES, St. Louis, Mo., Auction. For catalog write Q.M. S.O., 1819 W. Pershing Rd., Chicago, Ill.
- 9—ERIE HOWITZER PLANT, Erie, Pa., Auction. For catalog write Quartermaster General, Room 1018 Munitions Bldg., Wash., D. C.
- 13—ORDNANCE SUPPLIES, Rock Island, Ill., Sealed Bid. For catalog write C.O., Rock Island Arsenal, Rock Island, Ill.
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SEND FOR CATALOG

SELLING PROGRAM

- 20—ORDNANCE SUPPLIES, Watertown, Mass., Auction. For catalog write C. O., Watertown Arsenal, Watertown, Mass.
- 27—BLDGS. & IMPROVEMENTS, Lakehurst, N. J., Auction. For catalog write C. O., Lakehurst, N. J., or Q. M. General, Room 1018 Munitions Bldg., Wash., D. C.

APRIL

- 3—BLDGS. & IMPROVEMENTS, Camp Grant, Rockford, Ill., Auction. For catalog write C. O., Camp Grant or Q. M. General, Room 1018 Munitions Bldg., Wash., D. C.

The Government reserves the right to reject any or all bids.

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The War Department is jobbing on a huge scale—and on a greater variety of merchandise, probably, than any other jobber in the world.

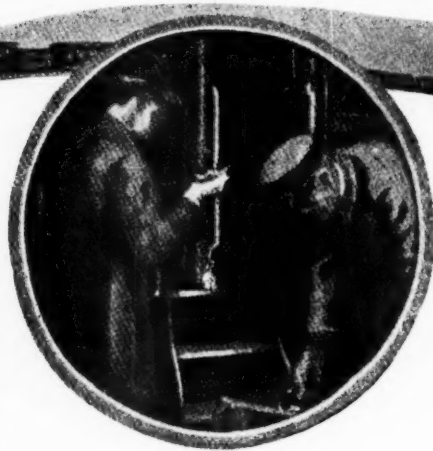
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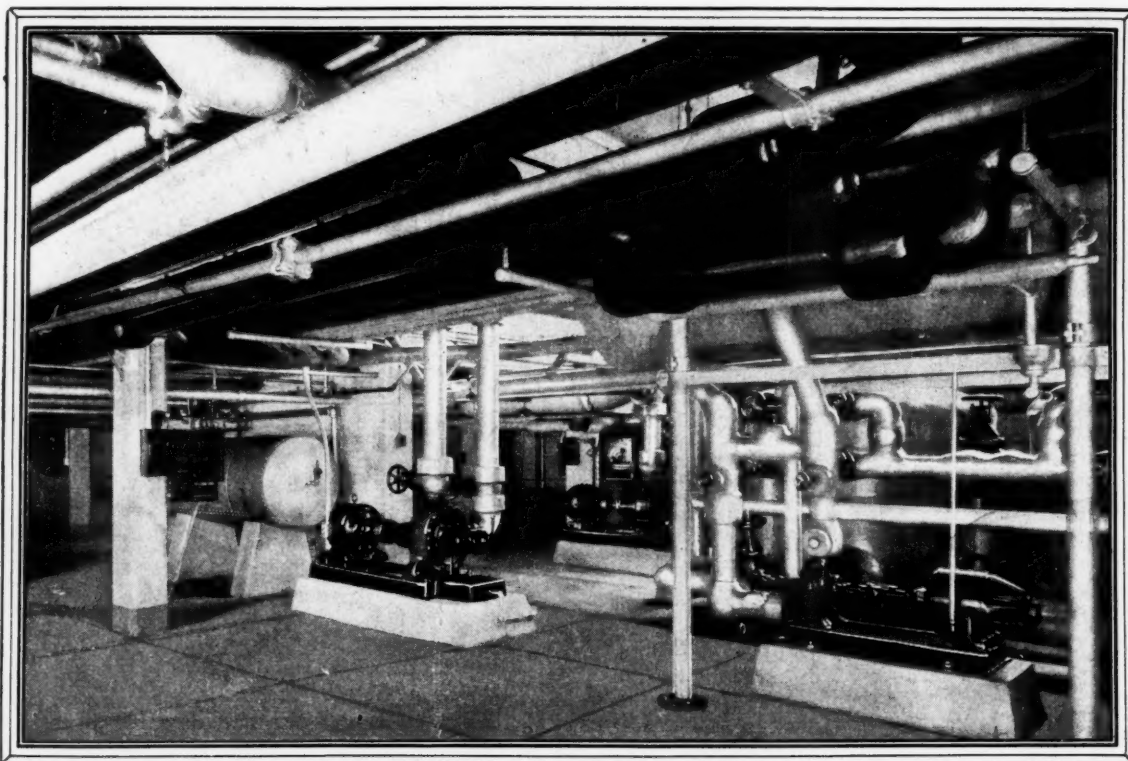
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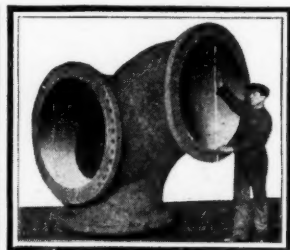
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